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GENERAL REPORT.

1911.

Combined Medical, Surgical, and Gynæcological Report for 1911

BY

M. A. CASSIDY, M.A., M.D., B.C.Cantab., M.R.C.P.Lond.,

L. S. T. BURRELL, M.A., M.B., B.C.Cantab., M.R.C.P.Lond.,
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Surgical Registrar,

AND

J. M. WYATT, M.B., B.S.Lond., F.R.C.S.Eng.,
Obstetric Registrar.

	Males.	Females.	Total.
Number of patients in Hospital, Jan. 1st, 1911	273	230	503
„ „ admitted during 1911	4062	3886	7948
„ „ discharged during 1911	3705	3577	7282
„ „ who died during 1911	403	273	676
„ „ in Hospital, Dec. 31st, 1911	254	239	493

Total mortality . . . . . 8·5 per cent.
Average duration of each patient's stay in Hospital . 23·43 days.

TABLE I.—*Statistical Statement of the Incidence of Diseases*

DISEASE.	Age.	0—				5—				10—				20—				30—			
	Total.	Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
GENERAL DISEASES.																					
1. Anæmias—																					
(*a*) Pernicious anæmia	10	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	1	...	...
(*b*) Chlorosis	5	...	...	...	...	...	...	...	...	...	2	...	...	...	3	..	...	...	...	...	...
(*c*) Splenic anæmia	8	3	...	...	...	1	...	...	...	1	...	...	...	1	...	...	...	1	...	..	...
(*d*) Secondary anæmia	8	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	...	1	...	...
2. Debility	4	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	..	...
3. (*a*) Diabetes	14	...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	...	1	1	...	
3. (*b*) Glycosuria	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	..	...	
4. Diphtheria	46	11	9	4	5	9	2	...	2	...	...	...	...	2	2	..	...	...	...	...	...
5. Enteric fever	7	...	...	...	...	1	...	...	...	1	3	...	...	...	...	...	...	1	..	...	
6. Erysipelas	42	2	3	1	1	1	2	...	...	...	5	...	...	1	3	...	...	3	3	...	...
7. Pyrexia	5	...	1	...	...	...	2	...	...	1	...	...	...	...	...	...	...	...	...	...	...
8. Gonorrhœa and gonorrhœal rheumatism	6	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	2	...	...
9. Gout	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10. Influenza	12	...	..	...	...	...	...	...	...	5	1	...	...	2	2	...	...	1	1	...	...
11. Leukæmia—																					
(*a*) Myelæmia	4	...	...	...	...	...	...	...	...	...	1	...	...	...	..	...	..	2	...	...	...
(*b*) Lymphæmia	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
12. Lymphadenoma	5	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	...	...	1	...
13. Malaria	5	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	3	..	...	...
14. Marasmus	15	2	3	8	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
15. (*a*) Measles	21	5	3	3	1	1	...	...	...	...	...	...	...	2	5	...	...	...	1	...	...
15. (*b*) German measles	3	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	...	...	..	...
16. Pyæmia	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
17. (*a*) Purpura	17	4	...	...	...	1	2	...	...	1	2	1	...	1	2	...	...	1	1	...	...
17. (*b*) Hæmophilia	3	...	...	1	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
18. Acute rheumatism	64	1	...	...	...	3	5	...	...	16	10	...	...	8	13	...	...	2	4	2	...
19. Rheumatoid arthritis	15	...	...	...	...	...	...	...	...	3	...	...	...	1	2	...	...	...	1	..	...
20. Rickets	5	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
21. Scarlet fever	2	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	..	...
22. Septicæmia	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
23. Syphilis—																					
(*a*) Congenital	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...
(*b*) Primary and secondary	12	...	..	...	...	...	...	...	...	1	1	...	...	2	4	...	...	2	2	...	...
(*c*) Tertiary	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
24. Tetanus	4	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
25. General tuberculosis	13	...	...	5	1	1	...	2	1	...	...	1	...	...	...	...	...	...	...	2	...
26. Acute abscess	95	3	4	1	...	5	2	...	...	8	5	1	...	11	5	...	...	12	13	1	...
27. Chronic abscess	68	4	4	...	...	11	7	...	...	12	6	...	...	2	9	...	...	2	3	...	...
28. Cellulitis	55	2	1	...	...	1	...	...	...	3	2	...	...	10	3	...	1	6	5	1	..
29. Sinus	18	1	...	...	...	...	...	...	...	2	...	...	...	8	3	...	...	1	...	...	...
30. (*a*) Carbuncle	11	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...
30. (*b*) Furunculosis	1													1	..	...	...	...	...	..	
31. Various general diseases	9	1	...	..	1	...	...	...	...	1	..	...	...	1	1	...	...	...	1	...	1

and Injuries, Medical, Surgical and Gynæcological.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	
5	1	...	...	...	1	...	...	...	...	...	...	7	3	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	5	...	...	
1	...	...	...	...	...	..	...	...	...	...	...	8	...	...	...	
1	2	...	...	1	...	...	...	...	...	...	...	3	5	...	...	
...	...	...	...	...	1	...	...	...	1	...	...	...	4	...	...	
3	1	...	...	1	1	...	...	...	1	1	...	7	5	2	...	39
...	...	...	...	...	...	...	...	..	1	...	..	...	2	...	...	
...	...	...	...	...	...	...	...	...	..	..	...	22	13	4	7	15
1	...	...	...	...	...	...	...	...	...	...	...	3	4	...	...	15, 148, 154, 198
3	1	1	1	4	3	...	...	3	1	...	...	17	21	2	2	
1	...	...	...	...	...	...	...	...	...	...	...	3	2	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	2	4	...	...	
1	2	...	...	1	...	...	...	...	...	...	...	2	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	8	4	...	...	
...	...	...	...	...	...	...	...	...	1	...	...	2	1	1	...	
...	...	...	...	...	2	...	...	...	...	...	...	...	2	..	1	
...	...	...	...	..	...	...	...	...	...	...	1	1	1	2	1	
...	...	...	...	1	...	...	...	...	...	...	...	4	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	2	3	8	2	15
...	...	...	...	...	...	...	...	...	...	...	...	8	9	3	1	4, 36, 98, 139, 24, 95, 97
...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	..	1	1	...	...	
...	...	...	...	1	...	...	...	...	...	...	...	9	7	1	...	
...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...	
...	...	...	...	...	...	...	...	...	...	...	...	30	32	2	...	
3	3	...	...	...	2	...	...	..	...	...	...	7	8	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	...	15
...	...	...	...	...	...	...	...	...	..	..	...	1	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	
...	...	...	...	...	...	...	...	...	..	...	...	5	7	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
..	...	1	...	...	...	...	...	...	...	...	...	2	...	2	...	
...	...	..	...	...	...	...	...	..	...	...	...	1	...	10	2	
8	2	...	...	9	2	...	...	2	1	...	...	58	34	3	...	
1	2	...	...	2	1	...	...	...	2	...	...	34	34	...	...	
4	1	2	...	6	3	...	1	2	...	1	...	34	15	3	3	
...	1	...	...	...	...	...	...	1	1	...	...	13	5	...	...	
4	1	...	...	1	...	...	...	2	1	...	...	7	3	1	...	
...	...	...	...	...	...	..	...	...	...	...	..	1	...	...	...	
1	...	1	...	...	...	...	...	...	...	...	...	4	2	1	2	

TABLE I—

DISEASE.	Age.	0—				5—				10—				20—				30—			
	Total.	Disch.		Died.		Disch.		Died.		Disch.		Died.		Disch.		Died.		Disch.		Died.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF RESPIRATORY SYSTEM.																					
32. Nasal—																					
(*a*) Deflected septum	66	...	...	...	...	1	1	...	...	16	6	...	...	12	15	...	...	7	5	...	...
(*b*) Hypertrophy of turbinates	22	...	...	...	...	...	...	...	...	3	6	...	...	4	7	...	...	...	...	...	...
(*c*) Nasal polypi	12	...	...	...	...	...	...	...	...	2	1	...	...	1	2	...	...	2	...	...	...
(*d*) Nasal, various	6	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	...	...
33. (*a*) Frontal and ethmoidal sinusitis	5	...	...	...	...	...	...	...	...	1	1	...	...	...	2	...	...	...	...	...	...
33. (*b*) Maxillary antrum																					
(1) Empyema	7	...	...	...	...	...	1	...	...	1	...	...	...	1	1	...	...	...	1	...	...
(2) Carcinoma	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
34. Larynx—																					
(*a*) Laryngitis	4	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
(*b*) Tuberculous laryngitis	3	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	...	...	...
(*c*) Syphilitic laryngitis	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
(*d*) Papilloma of larynx	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*e*) Carcinoma of larynx	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35. Bronchitis	45	11	12	2	...	1	4	...	...	...	...	...	...	...	2	...	...	4	1	...	...
36. Broncho-pneumonia	34	10	7	3	8	4	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...
37. Pneumonia	112	12	4	2	2	11	11	...	2	17	3	...	...	9	2	1	...	14	...	4	1
38. Bronchiectasis	9	1	1	...	...	1	1	...	...	...	2	...	...	...	1	1	...	...	1	...	...
39. Chronic pulmonary tuberculosis	36	1	...	...	...	...	...	...	...	1	3	1	...	5	2	1	1	2	3	4	...
40. Pleurisy	53	1	1	...	...	5	2	...	...	13	4	...	...	3	5	...	...	6	2	...	...
41. Empyema	51	4	3	3	...	2	7	1	1	3	1	1	...	4	5	1	...	4	3	...	...
42. Pneumothorax	4	...	...	...	...	1	...	...	...	...	...	...	...	2	...	1	...	...	...	...	...
43. Growth of lung or mediastinum	14	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	2	...	...
44. Respiratory diseases, various—																					
(*a*) Asthma	3	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...
(*b*) Pulmonary abscess	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...
(*c*) Tuberculous mediastinal glands	3	...	...	...	...	2	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
(*d*) Diagnosis uncertain	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
2	1	...	...	...	...	...	...	...	...	...	...	38	28	...	...	
1	...	...	...	...	1	...	...	...	...	...	...	8	14	...	...	
2	...	...	...	...	1	...	...	1	...	...	...	8	4	...	...	
...	1	...	...	1	1	...	...	...	...	...	...	1	5	...	...	
...	..	...	...	...	1	...	...	...	..	...	...	1	4	...	...	
...	2	...	...	...	...	...	...	...	...	...	...	2	5	...	...	
...	...	..	...	...	...	...	...	3	...	...	...	3	...	...	...	
...	...	...	...	...	...	...	...	1	...	...	...	2	2	...	...	
...	..	...	...	...	...	...	...	...	...	...	...	3	...	...	...	79
...	...	...	...	1	...	...	...	...	...	...	...	2	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	..	1	...	...	...	
...	1	...	1	1	...	..	...	1	...	...	...	2	1	...	1	
1	...	1	...	2	2	...	...	1	1	...	...	20	22	3	...	169
...	...	...	...	...	...	...	...	...	...	...	...	14	7	4	9	66, 4
4	1	6	1	1	1	2	1	...	...	...	...	68	22	15	7	41, 48
...	...	...	...	...	...	...	...	...	...	...	...	2	6	1	...	
3	2	1	...	2	2	...	1	1	...	...	...	15	12	7	2	3
5	...	...	...	3	1	...	...	2	...	...	...	38	15	...	...	
3	...	2	...	...	...	...	...	...	1	...	...	20	23	7	1	46, 37, 39
...	...	...	...	...	...	...	...	...	...	...	...	3	...	1	...	41, 68
...	...	2	...	...	1	2	1	2	...	2	1	2	1	8	3	
1	...	...	...	...	..	...	...	...	...	...	...	2	1	...	...	
...	...	1	...	...	...	...	...	...	...	...	...	1	...	2	...	
..	...	...	...	...	..	...	...	...	...	...	...	2	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	4	...	1	...	

TABLE I—

DISEASE.	Age.	0—				5—				10—				20—				30—			
	Total.	Discha.		Died.		Discha.		Died.		Discha		Died.		Discha		Died.		Discha.		Died.	
		M.	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F
DISEASES OF CIRCULATORY SYSTEM.																					
45. Aneurysm—																					
(*a*) Thoracic	14																			1	
(*b*) Various	5													2	1						
46. Aortic disease	23									1	1			3				4			
47. Arteriosclerosis	7																				
48. Malignant endocarditis	13											1			1		4		1	2	
49. Gangrene	23																				
50. Mitral disease	62				2	2				4	3			1	7		1	5	10	1	2
51. Mitral and aortic disease	20			1			1			1	1	1		2	2		1			2	1
52. Myocarditis	12																	2		1	1
53. Pericarditis	10				1	1				3	2								2	1	
54. Varicocele	54									25				24				5			
55. Varicose veins	110									7	1			30	17			18	21		
56. Thrombosis	6										1				2			1			
57. Congenital heart disease	3			2	1																
58. Various—																					
(*a*) Hæmorrhage after tonsillectomy	13																				
(*b*) Hæmorrhage after tooth extraction	1																				
(*c*) Epistaxis	2																				
(*d*) Toxic œdema	3		1								1										
(*e*) Angina pectoris	2																				
(*f*) Raynaud's disease	2														1						
(*g*) Aortic dilatation	2													1							
(*h*) Paroxysmal tachycardia	1																				
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES.																					
59. Skin cysts—																					
(*a*) Developmental	3		1											1	1						
(*b*) Sebaceous	6										1							2	1		
60. Skin and subcutaneous tumours—																					
(*a*) Angioma	7	2	1								1				1				1		
(*b*) Papilloma	5					1								1					2		
(*c*) Granuloma	3																		3		
(*d*) Lipoma	21	1													3				6		
(*e*) Fibroma	1									1											
(*f*) Endothelioma	5														1						
(*g*) Sarcoma	8										1				2			2			

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
2	...	3	...	4	1	1	..	1	...	1	...	7	1	6	...	
1	...	...	..	...	1	..	...	...	...	...	...	3	2	...	...	
4	2	3	1	2	1	...	...	1	...	...	...	15	4	3	1	18
...	...	...	...	1	...	1	...	4	...	1	...	5	...	2	...	
...	...	2	...	...	...	1	...	...	...	1	...	...	2	6	5	41
...	1	1	1	4	2	2	1	5	1	2	3	9	4	5	5	
2	8	...	1	3	5	1	...	...	3	...	1	17	38	2	5	18
...	1	1	...	...	1	2	1	...	...	1	...	3	5	9	3	
3	...	2	...	1	1	...	...	...	..	1	...	6	1	4	1	
...	...	...	...	...	..	...	...	...	...	...	...	4	5	1	...	18, 37, 41, 50
...	...	...	...	...	...	...	...	...	...	...	...	54	...	...	...	
6	8	...	...	1	1	...	...	...	...	...	..	62	48	...	...	
1	...	..	1	...	...	.	...	...	...	...	...	2	3	...	1	
...	...	...	...	...	...	..	...	...	...	...	...	...	...	2	1	
...	...	...	...	...	...	...	..	...	...	...	...	5	8	...	...	
...	...	..	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	...	3	...	...	
1	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	
...	...	...	...	1	...	...	...	...	...	...	...	1	1	...	...	
...	...	...	..	1	...	...	..	...	...	...	...	1	1	...	...	
...	1	...	...	...	..	...	...	...	...	...	...	...	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	
...	...	...	...	...	...	...	...	2	...	...	...	4	2	...	...	
...	...	...	...	...	1	...	...	...	...	...	...	2	5	...	...	
...	...	...	...	...	...	...	...	1	...	...	...	2	3	...	...	
..	1	...	...	...	...	...	...	...	...	...	...	...	3	..	...	
2	6	...	...	1	2	...	...	...	...	...	...	4	17	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	1	...	...	1	1	...	...	.	1	...	...	1	4	...	...	
...	...	...	...	...	1	...	...	1	1	...	...	3	5	...	...	

TABLE I—

DISEASE.	Age.	0—				5—				10—				20—				30—			
	Total.	Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd.		Died.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUES —*continued.*																					
61. Ulcers of skin—																					
(*a*) Simple	19	...	...	...	...	...	...	...	...	1	5	...	...	1	2	...	...	...	4	...	...
(*b*) Tuberculous	4	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	1	...	...
(*c*) Syphilitic	3	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
(*d*) Endotheliomatous	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
(*e*) Rodent	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*f*) Epitheliomatous	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
62. (*a*) Lupus	3	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
62. (*b*) Eczema	5	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
62. (*c*) Skin, various	7	...	...	...	...	1	1	...	...	...	...	...	...	1	1	...	...	1	1	...	...
DISEASES OF DIGESTIVE SYSTEM.																					
63. Mouth and pharynx—																					
(1) Stomatitis and pyorrhœa alveolaris	6	...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	1	...	...
(2) Carcinoma	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(3) Pharyngeal sarcoma	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
(4) Various	11	...	...	...	...	2	...	...	...	...	...	...	...	...	2	...	...	1	2	...	...
64. Tonsils—																					
(1) Enlarged tonsils and adenoids	35	1	...	...	...	4	4	...	...	4	10	...	...	7	1	...	...	1	3	...	...
(2) Tonsillitis	4	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	1	...	...	...
(3) Ulcer of tonsil	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
65. Lips and tongue—																					
(1) Glossitis	4	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...
(2) Simple tumours and cysts	6	...	1	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...
(3) Epithelioma	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
(4) Macroglossia	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
66. Œsophagus (stricture)	46	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	2	...	...
67. Stomach—																					
(*a*) Ulcer	78	...	...	...	...	...	...	...	...	...	4	...	...	1	21	1	...	6	12	1	2
(*b*) Carcinoma	33	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1	...
(*c*) Dilatation	30	...	...	...	...	...	...	...	...	...	...	...	...	1	5	2	...	1	7	1	...
(*d*) Various	19	...	...	1	...	...	...	...	...	...	...	...	...	1	3	1	...	1	6	...	...
68. Duodenal ulcer	33	...	...	...	...	...	...	...	...	...	...	1	...	3	...	...	...	8	...	1	...
69. Hæmatemesis	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
70. Intestinal, various—																					
(*a*) Simple	3	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...
(*b*) Malignant	16	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
2	...	...	...	...	2	...	...	2	...	...	...	6	13	...	...	
...	...	...	...	...	...	...	...	...	1	...	...	...	4	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	1	2	...	...	
...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	
1	...	...	...	1	...	...	...	2	1	...	...	4	1	...	...	
...	...	...	...	1	...	...	...	1	...	...	...	2	...	...	...	
1	...	...	...	...	1	...	...	...	...	...	...	1	2	...	...	
...	...	...	...	...	...	...	...	1	1	...	...	3	2	...	...	
1	...	...	...	...	...	...	...	...	...	...	...	4	3	...	...	
1	...	...	...	...	...	...	...	1	...	...	...	3	3	...	...	
2	...	...	1	5	...	...	...	10	...	...	...	17	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	1	...	...	...	...	...	...	1	2	...	...	4	7	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	17	18	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	...	
...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	
1	...	...	...	...	1	...	...	...	...	...	...	1	3	...	...	
...	1	...	...	1	...	...	...	1	...	...	...	3	3	...	...	
10	1	1	...	7	...	1	...	9	...	...	...	27	1	2	...	
...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	
6	...	2	...	11	2	3	1	11	1	5	...	29	6	10	1	
3	11	...	...	5	4	1	...	1	2	...	...	16	57	3	2	
7	2	3	2	3	2	3	1	6	1	...	...	18	5	7	3	
4	2	...	...	1	2	1	...	2	1	...	...	9	17	4	...	
1	3	...	...	...	1	...	...	1	...	...	...	4	13	2	...	
7	...	2	1	7	...	2	...	1	...	...	...	26	...	6	1	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	...	1	...	...	...	...	...	...	...	...	...	2	...	1	...	
...	2	...	...	2	2	2	2	4	...	...	...	8	4	2	2	75

TABLE I—

DISEASE.	Total.	Age. 0— Discld. M.	0— Discld. F.	0— Died. M.	0— Died. F.	5— Discld. M.	5— Discld. F.	5— Died. M.	5— Died. F.	10— Discld. M.	10— Discld. F.	10— Died. M.	10— Died. F.	20— Discld. M.	20— Discld. F.	20— Died. M.	20— Died. F.	30— Discld. M.	30— Discld. F.	30— Died. M.	30— Died. F.
DISEASES OF DIGESTIVE SYSTEM—*continued.*																					
71. Appendicitis—																					
(*a*) Acute and quiescent	262	3	...	...	...	6	8	...	...	31	36	...	1	44	57	...	...	16	32	1	1
(*b*) Acute appendicitis with local peritonitis	77	...	...	...	...	8	2	1	...	19	10	...	...	15	4	1	1	2	4	1	...
72. Appendix abscess	77	1	2	...	...	8	3	...	1	15	11	2	...	6	6	...	...	7	3	1	1
73. Appendicitis with spreading or general peritonitis	59	...	...	...	...	4	...	1	3	7	9	3	4	3	2	1	3	4	3	2	1
74. Colitis—	17	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	5	5	...	...
75. Intestinal obstruction—																					
(*a*) Simple—																					
(1) Spasmodic	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(2) Bands and adhesions	10	...	...	...	...	...	...	1	...	...	...	...	...	1	1	...	1	1	...	...	...
(3) Internal hernia	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
(4) Volvulus	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...
(5) Various	2	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...
(*b*) Carcinoma of bowel	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	2	...	...
(*c*) Intussusception	25	7	10	7	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
76. Rectum and anus—																					
(*a*) Prolapse	5	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1	1	...	...
(*b*) Fibrous stricture	3	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	1	...	...
(*c*) Polyp	3	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
(*d*) Carcinoma	39	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	2	3	...	...
(*e*) Various	9	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	3	...	...	...
77. Hæmorrhoids	91	...	...	...	...	...	...	...	...	1	2	...	...	9	10	...	...	21	15	...	...
78. (*a*) Fissure *in ano*—	12	...	...	...	...	...	...	...	...	...	...	...	...	1	3	...	...	2	3	...	...
(*b*) Fistula „	39	...	...	...	...	...	...	...	...	2	...	...	...	4	2	...	...	6	1	...	...
79. Abdominal pain	76	2	1	...	...	4	1	...	...	5	4	...	...	3	14	...	...	7	12	...	...
80. Constipation	23	...	1	...	...	...	...	...	...	1	2	...	...	2	6	...	...	1	3	...	...
81. Diarrhœa and dysentery	4	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	2	...	...
82. Dyspepsia	43	...	...	...	...	1	1	...	...	...	4	...	...	1	8	...	...	6	9	...	...
83. Dysphagia	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
84. Enteritis	35	6	4	15	3	1	...	...	1	1	1	...	...	1	...	...	...	...	1	...	...
85. Abdominal, various—																					
(*a*) Visceroptosis	18	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...
(*b*) Abdom'l tumours	18	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	...	1	1	...	...
(*c*) Various	10	...	...	...	...	1	...	...	...	...	...	...	...	...	2	1	...	1	1	...	...
86. Foreign bodies in the intestinal tract	11	...	2	1	...	1	...	...	...	1	1	...	...	2	...	...	...	...	2	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F	M.	F.	
10	8	...	...	3	4	...	...	1	...	...	...	114	145	1	2	
2	2	...	...	1	3	...	...	...	1	...	...	47	26	3	1	
2	4	...	...	1	1	...	...	...	1	...	1	40	31	3	3	
1	...	2	1	...	1	2	...	...	...	2	...	19	15	13	12	
...	1	...	1	2	...	1	...	...	...	...	...	8	7	1	1	
1	...	...	...	...	...	...	...	2	...	...	...	3	...	...	...	
...	1	...	...	...	1	...	1	...	1	1	...	2	4	2	2	
...	...	...	...	1	...	...	...	...	1	...	...	1	1	1	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	
1	2	1	1	1	...	2	1	1	1	3	2	3	5	6	5	
...	...	...	...	...	...	...	...	...	...	...	...	7	9	7	2	
1	...	...	...	...	...	...	...	...	...	...	...	3	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	
...	...	...	...	...	...	...	...	1	1	...	...	2	1	...	...	
3	1	1	...	6	...	1	1	13	4	1	1	25	8	3	3	
...	2	...	...	1	1	...	...	...	...	...	...	5	4	...	...	
11	6	...	...	8	1	...	...	5	2	...	...	55	36	...	...	
1	2	...	...	...	...	...	...	...	...	...	...	4	8	...	...	
8	1	...	...	12	...	...	...	1	...	...	...	35	4	...	...	
5	6	...	...	2	4	...	...	2	4	...	...	30	46	...	...	
2	2	...	...	1	1	...	...	1	...	...	...	8	15	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	
3	5	...	...	2	2	...	...	1	...	...	...	14	29	...	...	
...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	
...	...	...	...	...	...	...	...	...	1	...	...	9	7	15	4	
...	6	...	1	...	3	...	...	...	2	...	...	...	17	...	1	
...	2	...	...	1	4	...	...	1	4	...	1	4	11	2	1	
2	...	...	...	...	2	...	...	...	...	...	...	3	6	1	...	
1	...	...	...	...	...	...	...	...	...	...	...	5	5	1	...	

TABLE I—

DISEASE.	Age	0—				5—				10—				20—				30—			
	Total.	Discld.		Died.		Discld.		Died.		Discld.		Died.		Discld.		Died.		Discld.		Died.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F	M.	F.
DISEASES OF DIGESTIVE GLANDS.																					
87. Salivary glands—																					
(*a*) Chronic inflammation	3	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
(*b*) Retention cysts	3	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...
(*c*) Salivary fistula	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*d*) Parotid endothelioma	8	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	1	...	...	..
(*e*) Carcinoma	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
88. Cirrhosis of liver—																					
(*a*) Portal cirrhosis	26	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
(*b*) Biliary cirrhosis	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*c*) Syphilitic cirrhosis	3	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
89. Cholelithiasis	44	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	3	6	...	1
90. Cholecystitis	18	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	3	2	...	...
91. Jaundice	6	...	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	1	1	...	...
92. Pancreas	11	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
93. Digestive, various—																					
(*a*) Carcinoma of liver	6	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
(*b*) Carcinoma of gall-bladder	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*c*) Gumma liver	5	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
(*d*) Cyst of liver	4	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...
(*e*) Various	3	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
94. Ascites	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
95. Tuberculous peritonitis	27	2	2	1	...	6	...	...	...	6	2	1	2	...	2	...	...	...	1	...	1
96. Peritonitis, various—																					
(*a*) Localised peritonitis of undiscovered origin	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...
(*b*) General suppurative peritonitis of undiscovered origin	11	...	...	...	...	...	1	...	2	...	1	...	...	...	...	...	...	...	...	...	2
97. HERNIA—																					
A. Inguinal—																					
(*a*) Reducible	183	51	2	2	...	33	8	...	...	65	21	...	...	100	25	...	...	59	11	...	...
(*b*) Irreducible	38	2	...	...	...	...	...	...	...	2	...	...	...	8	1	...	...	6	...	...	...
(*c*) Strangulated	34	4	1	2	...	...	...	...	...	...	...	...	...	2	...	...	...	8	1	...	...
(*d*) Recurrent	21	...	...	...	...	1	...	...	...	4	1	1	...	5	...	...	...	5	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES
Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
1	...	...	...	1	...	...	...	...	...	...	...	3	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	
1	1	...	...	2	...	...	...	1	...	...	...	5	3	...	...	
...	1	...	...	...	...	...	...	1	...	...	...	1	1	...	...	
5	4	...	1	8	...	1	1	1	2	1	...	16	6	2	2	
1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	...	
2	11	...	...	2	7	...	2	4	1	...	1	11	29	...	4	
3	3	...	...	...	2	...	...	1	3	...	...	7	11	...	...	
...	...	...	...	...	...	...	...	1	...	...	...	3	3	...	...	
...	...	1	...	1	2	1	...	3	1	1	...	5	2	3	...	
1	...	...	...	...	...	...	...	2	1	1	...	4	1	1	...	
...	...	...	...	1	1	...	...	...	1	2	...	1	2	...	2	
1	...	...	...	1	...	...	...	1	...	...	...	4	1	...	...	
...	...	...	...	...	...	...	...	...	1	...	...	...	4	...	...	
1	...	...	...	...	...	...	...	1	...	...	...	2	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
1	...	...	...	...	...	...	...	...	...	...	...	15	7	2	3	41, 95
...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	
...	1	1	...	...	...	1	...	...	1	...	1	...	4	2	5	
54	3	...	...	31	2	...	...	16	...	...	...	409	72	2	...	
6	...	...	...	5	...	...	...	8	...	...	...	37	1	...	...	
4	1	1	...	2	1	1	...	4	...	2	...	24	4	6	...	
4	...	...	...	...	...	...	...	...	...	...	...	19	1	1	...	

TABLE I—

DISEASE.	Age.	0—				5—				10—				20—				30—			
	Total.	Discld.		Died.		Discld.		Died.		Discld.		Died.		Discld.		Died.		Discld.		Died.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
97. HERNIA—*continued.*																					
B. Femoral—																					
(*a*) Reducible	32	...	...	...	...	...	...	...	...	2	1	...	...	2	7	...	...	1	10	...	...
(*b*) Irreducible	22	...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	4	2	...	...
(*c*) Strangulated	24	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	1
(*d*) Recurrent	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
C. Umbilical and ventral—																					
(*a*) Reducible and irreducible	57	1	2	...	...	2	1	...	...	...	1	1	...	3	4	...	...	3	8	..	...
(*b*) Strangulated	11	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*c*) Recurrent	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	..	...	...
D. Various	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
98. DISEASES OF THE LYMPHATIC SYSTEM—																					
A. Simple adenitis—																					
(*a*) Acute	17	...	...	1	...	1	1	...	...	1	1	...	...	3	..	...	...	5	2	...	...
(*b*) Chronic	6	1	...	...	...	...	...	...	...	1	...	...	...	...	2	...	...	1	..	...	...
B. Tuberculous adenitis	66	2	...	...	...	4	6	...	...	13	8	...	1	2	20	...	...	4	2	...	...
99. Carcinoma	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
100. Various—																					
(*a*) Sarcoma of glands	9	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...	...	2	...	1
(*b*) Lymphangitis	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DISEASES OF THE DUCTLESS GLANDS.																					
101. Addison's disease	2	...	..	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	2	...	...
102. Graves's disease	33	...	...	...	...	...	...	...	...	2	1	..	1	2	10	2	...	..	6	...	2
103. AFFECTIONS OF THYROID GLAND—																					
(*a*) Diffuse enlargement	15	...	...	..	...	...	1	...	...	3	3	...	1	...	1	...	...	...	3	...	...
(*b*) Adenoma and cystic adenoma	30	...	..	...	...	...	...	...	..	...	2	...	...	1	8	...	...	...	7	...	...
(*c*) Carcinoma	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
104. Various	...	...	...	..	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	..
DISEASES OF THE GENITAL SYSTEM.																					
105. Diseases of the breast—																					
A. Simple—																					
(*a*) Fibro-adenoma	15	..	...	...	...	...	...	...	...	1	..	...	...	8	...	...	...	3	...	...	...
(*b*) Simple cysts	2	...	...	...	...	...	...	...	...	..	...	...	...	..	..	...	...	...	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
2	4	...	...	1	2	...	...	...	...	...	...	8	24	...	...	
2	6	...	...	...	1	...	...	2	2	...	...	9	13	...	...	
...	2	...	1	1	5	...	1	3	8	...	...	4	17	...	3	
...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	
4	9	...	...	3	9	...	...	3	1	1	...	20	35	2	...	
...	...	...	...	...	...	1	...	1	5	1	3	1	5	2	3	
...	1	...	...	...	...	...	...	...	...	...	...	1	1	...	...	
...	1	...	1	...	...	...	...	2	...	...	...	2	1	...	1	
...	1	...	...	...	...	...	...	...	1	...	...	10	6	1	...	
...	...	...	...	...	...	...	...	...	1	...	...	3	3	...	...	
...	3	...	...	...	...	...	...	1	...	...	...	26	39	...	1	
...	...	...	...	...	1	...	...	4	...	2	...	5	2	2	...	
2	...	...	...	1	...	...	...	...	...	...	...	6	2	...	1	
...	...	...	..	...	1	...	...	...	...	...	...	...	1	...	...	
...	...	...	...	...	..	...	...	...	...	...	...	...	2	...	...	
...	6	...	1	..	...	...	...	...	...	...	...	4	23	4	2	
...	1	...	...	...	2	...	...	...	...	...	...	3	11	...	1	
1	6	...	...	...	5	...	...	...	...	...	...	2	28	...	...	
...	2	...	...	1	1	...	...	...	...	...	...	1	3	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
...	3	...	...	...	...	...	...	...	...	...	...	...	15	...	...	
...	1	...	...	...	1	...	...	...	...	...	...	...	2	...	...	

TABLE I.—

DISEASE.	Age.	0—				5—				10—				20—				30—			
	Total.	Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE GENITAL SYSTEM—*continued.*																					
105. Diseases of the breast —*continued.*																					
(*c*) Cystic mastitis	7	...	...	...	...	...	...	...	...	...	...	...	...	.....	...	...	...	2	...	...	...
(*d*) Chronic mastitis	15	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	6	...	...	...
B. Carcinoma	73	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9	...	...	...
106. Undescended testis	27	2	...	...	...	3	...	...	...	17	...	...	...	3	...	...	...	2	...	...	...
107. Diseases of testis																					
(*a*) Tuberculous	15	...	...	...	...	1	...	...	...	4	...	...	...	3	...	...	...	4	...	...	...
(*b*) Syphilitic	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
(*c*) Acute epididymitis and orchitis	5	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...	...	1	...	...	...
(*d*) Chronic epididymitis and cysts	8	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...
(*e*) Carcinoma	3	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...
108. Tunica and processus vaginalis—																					
A. Hydrocele of tunica vaginalis	35	3	...	...	...	5	...	...	...	10	...	...	...	8	...	...	...	3	...	...	...
B. Hæmatocele of tunica vaginalis	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
109. Diseases of the ovary—																					
(*a*) Cysts, simple and multiple	46	...	...	...	...	...	...	...	...	...	...	...	...	...	9	...	...	..	11	...	2
(*b*) Dermoid cysts	4	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2	...	...
(*c*) Other diseases, including malignant disease	10	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...
(*d*) Broad ligament cysts	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...
110. Diseases of the Fallopian tubes—																					
(*a*) Salpingitis	43	...	...	...	...	...	...	...	...	...	1	...	...	...	23	...	...	...	13	...	2
(*b*) Pyosalpinx and tubo-ovarian abscess	33	...	...	...	...	...	...	...	...	...	...	...	...	...	13	...	...	...	10	...	1
(*c*) Hydrosalpinx and tubo-ovarian cysts	6	...	...	...	...	...	...	...	...	..	...	...	...	...	1	...	...	...	3	...	...
111. Ectopic gestation	18	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	7	...	1
112. Menstrual disorders—																					
(*a*) Menorrhagia and metrorrhagia	55	...	...	...	...	...	...	...	...	...	1	...	...	...	15	...	...	...	19	...	...
(*b*) Dysmenorrhœa	11	...	...	...	...	...	...	...	...	...	6	...	...	...	28	...	...	...	9	...	...
(*c*) Various	2	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
...	4	...	...	...	1	...	...	...	...	...	...	...	7	...	...	
...	8	...	...	...	...	...	...	...	...	...	...	...	15	...	...	
...	28	...	...	...	17	...	...	...	18	...	1	...	72	...	1	
...	...	...	...	...	..	...	...	...	...	...	...	27	...	...	...	
2	...	...	..	...	...	...	...	1	...	...	...	15	...	...	...	
1	..	...	...	1	...	...	...	...	...	...	...	4	...	...	...	
...	...	...	...	..	..	...	...	1	...	...	...	5	...	...	...	
2	...	...	...	2	...	...	...	1	...	...	..	8	...	...	...	
1	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	
4	...	...	...	2	...	...	...	...	...	...	...	35	...	...	...	
2	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	
...	9	...	...	...	9	...	1	...	5	...	...	...	43	...	3	
...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	
...	3	...	1	...	...	...	1	...	1	...	1	...	7	...	3	
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	
...	3	...	...	...	1	...	...	...	...	...	...	...	41	...	2	
...	7	...	...	...	1	...	1	...	...	...	...	...	31	...	2	
...	2	...	...	...	...	...	...	...	...	...	...	...	6	...	...	
...	4	...	...	...	...	...	...	...	...	...	...	...	17	...	1	
...	17	...	...	...	3	...	...	...	...	...	...	...	55	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	...	44	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	

TABLE I.—

DISEASE.	Age.	0—				5—				10—				20—				30—			
	Total.	Discld.		Died.		Discld.		Died.		Discld.		Died.		Discld.		Died.		Discld.		Died.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE GENITAL SYSTEM—*continued.*																					
113. Pregnancy and its disorders—																					
(*a*) Abortion	68	...	...	...	...	...	...	...	...	...	3	...	...	...	18	...	...	...	38	...	2
(*b*) Normal pregnancy	286	...	...	...	...	...	...	...	...	...	11	...	...	...	170	...	...	...	91	...	...
(*c*) Toxæmias of pregnancy	14	...	...	...	...	...	...	...	...	...	...	...	1	...	8	...	1	...	2	...	1
(*d*) Ante-partum hæmorrhage	13	...	...	...	...	...	...	...	...	...	...	...	...	...	6	..	...	...	4	...	1
(*f*) Contracted pelvis	10	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	4	...	...
(*g*) Obstructed labour	32	...	...	...	...	...	...	...	...	...	...	...	...	...	19	...	...	...	11	...	...
(*h*) Pregnancy, various	28	...	...	...	...	...	...	...	...	...	...	...	...	...	11	...	2	...	11	...	1
(*i*) Sequelæ of pregnancy	7	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2	...	1
114. Diseases of the body of the uterus—																					
(*a*) Endometritis and adenoma of endometrium	19	...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	1	...	6	...	...
(*b*) Fibromyomata uteri	59	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	20	...	...
(*c*) Polypi — fibroid and mucous	16	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	3	...	...
(*d*) Malignant disease	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*e*) Various	9	...	...	...	..	...	...	...	...	...	...	...	...	...	6	...	...	...	2	...	...
115. Diseases of the cervix—																					
(*a*) Carcinoma	23	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	5	...	1
(*b*) Various	3	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...
116. Pelvic inflammation—																					
(*a*) Cellulitis	6	...	...	...	..	...	...	...	...	...	...	...	...	...	3	...	...	...	3	...	...
(*b*) Peritonitis	19	...	...	...	...	...	...	...	...	...	1	...	...	...	9	...	...	...	4	...	...
117. Vagina and vulva—																					
(*a*) Epithelioma	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...
(*b*) Disease of Bartholin's gland	7	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	..	...	...	...	...
(*c*) Urethral caruncle	4	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	..	...	...	...	...
(*d*) Hæmatocolpos	2	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...
(*e*) Vaginal, various	5	...	.	...	...	...	1	...	...	..	..	..	.	...	1	...	...	...	2	..	...
(*f*) Leucorrhœa	8	..	...	...	...	...	...	...	...	...	1	...	...	...	4	...	...	...	2	...	..
(*g*) Vulva, various	4	..	...	...	..	.	...	...	.	...	1	...	...	...	1	...	...	...	1	...	...
118. Ruptured perinæum	15	..	...	..	...	..	...	...	.	...	...	...	...	...	3	...	..	..	7	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
...	7	...	...	...	...	...	...	...	...	...	...	...	66	...	2	
...	14	...	...	...	...	...	...	...	...	...	...	...	286	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	.	11	...	3	
...	2	...	...	...	...	...	...	...	..	...	...	...	12	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	10	...	...	
...	2	...	...	...	...	..	...	...	...	...	...	...	32	...	...	
...	2	...	1	...	...	...	...	...	...	...	...	...	24	...	4	
...	...	...	1	...	1	...	...	...	...	...	..	...	5	...	2	
...	2	...	...	...	4	...	...	...	...	...	...	...	18	...	1	
...	28	...	2	...	8	...	...	...	...	...	...	..	57	...	2	
...	7	...	...	...	3	...	...	...	1	...	...	...	16	...	..	
...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
...	...	...	...	...	...	...	...	...	1	...	...	...	9	...	...	
...	8	...	2	...	4	...	...	...	2	...	1	...	19	...	4	
...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	6	...	...	
...	3	...	...	...	2	...	...	...	...	...	...	...	19	...	...	
...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	
...	3	...	...	...	...	...	...	...	1	...	...	..	7	...	...	
...	...	...	...	...	3	...	...	...	...	...	...	...	4	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	
...	...	...	...	...	...	...	...	...	1	...	...	...	5	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	...	8	...	...	
...	...	...	...	...	...	...	...	...	1	...	...	...	4	...	...	
...	1	...	...	...	4	...	...	...	...	...	...	...	15	...	...	

TABLE I.—

DISEASE.	Age.	0—				5—				10—				20—				30—			
	Total.	Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd.		Died.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE GENITAL SYSTEM—*continued.*																					
119. Prolapse and displacements—																					
(*a*) Prolapse of uterus	24	...	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	8	...	...	...
(*b*) Prolapse of vaginal walls	6	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	4	...	...	...
(*c*) Retroversion and retroflexion	9	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	6	...	...	...
120. Genital, various—																					
(Female) . . .	6	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	2	...	...	...
DISEASES OF THE URINARY SYSTEM.																					
121. Movable kidney . .	17	...	...	...	...	...	..	...	...	1	...	...	...	7	...	...	...	5	...	...	...
122. Renal calculus and colic	42	...	...	...	...	...	1	...	...	2	1	...	...	4	3	...	...	4	7	1	...
123. Hydronephrosis . .	6	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	2	1	1
124. Pyonephrosis . .	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...
125. Kidney, and ureter, various—																					
(*a*) Pyelitis . .	5	...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	...	1	1	...	...
(*b*) Tumour of kidney	7	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	1	1	...	1	...
(*c*) Tuberculosis of kidney	4	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1	...
(*d*) Various . .	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
126. Acute nephritis . .	16	...	...	...	...	3	1	...	1	3	...	1	...	...	2	...	...	2	1	...	...
127. Chronic nephritis .	57	...	...	...	...	...	...	1	...	2	5	...	...	3	6	...	1	3	1	2	3
128. Bladder—																					
Calculus . . .	8	1	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
129. (*a*) Simple cystitis .	16	1	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	3	2	...	...
129. (*b*) Tuberculous cystitis	12	...	...	...	...	...	...	...	...	...	...	1	...	4	3	...	...	1	2	1	...
129. (*c*) Papilloma .	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...
129. (*d*) Carcinoma	3	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...
129. (*e*) Unclassified	4	..	...	...	...	1	...	...	...	...	...	...	...	1	1	...	...	...	...	...	...
130. Prostate—																					
(*a*) Simple enlargement	29	..	..	..	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.
(*b*) Prostatic calculi	1	...	...	..	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*c*) Carcinoma .	7	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...
131. Urethra and external genitalia—																					
(*a*) Phimosis and paraphimosis	19	1	...	..	...	...	...	...	...	6	...	..	..	11	...	...	...	...	...	...	...
(*b*) Urethritis . .	8	..	...	...	...	...	..	...	...	1	...	...	...	7	...	...	...	..	...	...	...
(*c*) Periurethral abscess and ulceration	3	..	...	...	...	..	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
...	5	...	...	...	2	...	...	...	2	...	...	...	24	...	...	
...	...	...	...	...	1	...	...	...	...	...	...	...	6	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	...	9	...	..	
...	2	...	...	...	...	...	...	...	...	...	...	...	6	...	...	
...	2	...	...	...	2	...	...	...	...	...	...	...	17	...	...	
8	5	1	...	2	...	...	...	3	...	...	...	23	17	2	...	
...	...	...	...	...	...	...	...	..	...	...	...	...	3	2	1	
2	1	...	...	...	3	...	...	...	...	...	...	2	7	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	4	...	...	
...	...	1	...	1	1	1	...	...	...	...	...	2	1	3	1	
1	...	...	...	...	...	...	...	...	...	...	...	2	1	1	...	
2	...	...	...	...	1	...	...	...	...	...	...	2	1	...	..	
...	...	1	...	...	...	...	...	..	...	...	...	8	5	2	1	37
3	2	2	3	6	3	2	...	2	2	4	1	19	19	11	8	
2	...	1	...	1	...	..	...	...	...	...	...	7	...	1	...	
2	2	1	...	...	...	...	...	2	...	...	...	10	5	1	...	
...	...	...	...	...	...	...	...	...	...	..	..	5	5	2	...	
...	...	...	...	...	1	...	...	2	...	...	...	4	2	...	...	
...	...	1	...	...	...	...	...	2	...	...	...	2	...	1	...	
...	...	...	...	...	...	1	...	...	...	...	...	2	1	1	...	
...	...	...	..	4	...	...	...	16	...	9	...	20	...	9	...	
...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	
...	...	...	...	2	...	...	...	4	...	1	...	6	...	1	...	
1	...	...	...	...	...	...	...	...	...	...	...	19	...	...	...	
..	...	...	...	...	...	...	...	...	...	...	...	8	...	...	...	
...	...	...	...	...	...	...	...	1	...	...	...	3	...	...	...	

TABLE I.—

DISEASE.	Age.	0—				5—				10—				20—				30—			
	Total.	Discld.		Died.		Discld.		Died.		Discld.		Died.		Discld.		Died.		Discld.		Died.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
DISEASES OF THE URINARY SYSTEM—*continued.*																					
131. Urethra and external genitalia—*continued.*																					
(*d*) Impacted calculus	2	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
132. Stricture of the urethra	54	...	...	...	...	...	...	...	...	2	...	...	...	3	...	...	...	16	...	1	...
133. Urinary, various—																					
(*a*) Pyuria and bacilluria	4	...	1	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...
(*b*) Hæmaturia	9	1	...	...	...	...	...	...	...	2	...	...	...	2	...	...	...	...	1	...	...
(*c*) Hæmoglobinuria	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*d*) Albuminuria	2	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...
(*e*) Unclassified	9	1	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...
DISEASES OF MUSCLES.																					
134. Muscles—	5	...	1	...	...	2	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...
DISEASES OF BURSÆ AND TENDON SHEATHS.																					
135. (*a*) Acute and suppurative bursitis	10	...	...	...	...	...	...	...	...	2	2	...	...	1	1	...	...	...	2	...	...
(*b*) Chronic bursitis	22	...	...	...	...	...	...	...	...	1	5	...	...	...	9	...	...	2	2	...	...
(*c*) Tuberculous bursitis	2	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...
(*d*) Acute and suppurative tenosynovitis	6	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
(*e*) Tuberculous tenosynovitis	2	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...
(*f*) Ganglion	3	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	2	...	...
DISEASES OF THE OSSEOUS SYSTEM.																					
136. Periostitis—																					
(*a*) Acute	7	1	...	...	...	1	...	...	...	...	1	...	...	2	1	...	...	...	...	...	...
(*b*) Chronic	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
137. Acute osteomyelitis	12	...	...	1	...	1	1	1	...	2	...	1	1	1	...	...	...	...	...	...	...
138. Osteitis	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...
139. Caries—																					
(*a*) Caries of spine	33	3	2	...	...	2	2	...	...	5	1	...	...	9	1	...	...	2	...	...	...
(*b*) Caries of bones of trunk	10	...	...	...	...	...	...	...	...	3	...	1	...	2	1	...	...	...	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
												2				
13				10		4		4		1		48		6		
	1											1	3			
	1				1			1				6	3			
									1				1			
													2			
				2				4					9			
												3	2			
	1							1				4	6			
				1	1			1				5	17			
												2				
	3					1			1				5		1	
												1	1			
													3			
				1								5	2			
				1	1			1				2	2			
												4	4	3	1	
					1							1	2			
									1			21	12			
	1			1				1				7	2	1		

TABLE I.—

DISEASE.	Total.	Age. 0— Discld. M.	0— Discld. F.	0— Died. M.	0— Died. F.	5— Discld. M.	5— Discld. F.	5— Died. M.	5— Died. F.	10— Discld. M.	10— Discld. F.	10— Died. M.	10— Died. F.	20— Discld. M.	20— Discld. F.	20— Died. M.	20— Died. F.	30— Discld. M.	30— Discld. F.	30— Died. M.	30— Died. F.
DISEASES OF THE OSSEOUS SYSTEM—*continued.*																					
139. Caries—*continued.*																					
(*c*) Caries of bones of extremities	16	...	1	...	...	1	2	...	...	5	3	...	...	...	...	...	...	...	3	...	...
(*d*) Caries of bones of skull	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
140. Necrosis—																					
(*a*) Bones of extremities	21	...	...	...	...	1	1	...	...	8	1	...	...	3	1	...	...	1	1	...	...
(*b*) Bones of skull and jaw	8	1	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	1	1	...	...
141. Tumours of bone—																					
(*a*) Simple	13	...	...	...	...	...	1	...	...	7	2	...	...	...	3	...	...	...	...	...	...
(*b*) Malignant	15	...	...	...	...	...	1	...	...	1	2	...	...	3	2	...	...	1	...	...	...
142. (*a*) Cysts of bone	5	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	1	...	...	...
142. (*b*) Various affections	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
143. Affections of amputation stumps	6	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
DISEASES OF THE ARTICULATORY SYSTEM—																					
144. Shoulder—																					
(*a*) Tuberculous	5	...	1	...	...	1	1	...	...	2	...	...	...	...	...	...	...	...	...	...	...
(*b*) Ankylosis	3	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
(*c*) Osteo-arthritis	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
145. Elbow—																					
(*a*) Tuberculous	3	...	...	...	...	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	...
(*b*) Ankylosis and loose body	2	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...
146. Wrist and carpal joints—																					
(*a*) Tuberculous	5	...	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	2	...	...	...
(*b*) Acute arthritis	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*c*) Chronic arthritis	3	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
147. Sacro-iliac—																					
Tuberculous	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
148. Hip-joint—																					
(*a*) Tuberculous	36	3	3	...	...	9	3	...	...	8	3	2	...	...	4	...	...	1	...	...	...
(*b*) Acute arthritis	2	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
(*c*) Chronic arthritis	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*d*) Ankylosis	5	...	...	...	...	...	...	...	...	...	2	...	...	3	...	...	...	...	...	...	...
149. Knee-joint—																					
(*a*) Tuberculous	29	2	1	...	...	10	3	...	...	2	2	...	...	4	3	...	...	2	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Discld.		Died.		Discld.		Died.		Discld.		Died.		Discld.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
...	...	...	...	...	...	...	...	...	1	...	...	6	10	...	...	
...	...	...	..	...	...	...	...	...	...	...	...	1	...	...	...	
2	...	...	...	2	...	...	...	...	...	...	...	17	4	...	...	
...	...	...	...	2	1	...	...	...	...	...	...	6	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	7	6	...	...	
...	1	1	...	1	...	...	...	...	2	...	...	6	8	1	...	
...	...	...	...	...	1	...	...	...	...	...	...	3	2	...	...	
...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	...	
2	...	...	...	...	...	...	...	1	...	...	...	5	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	...	
1	...	...	...	...	1	...	...	...	...	...	...	2	1	...	...	
...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	
...	...	...	...	..	1	...	...	...	...	...	...	2	3	...	...	
...	...	...	...	...	...	...	..	...	1	...	...	...	1	...	...	
1	1	...	...	...	...	...	...	...	...	...	...	2	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	..	
...	...	...	...	...	...	...	...	...	...	...	...	21	13	2	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	
1	1	...	...	...	...	...	...	1	...	...	...	2	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	3	2	...	...	
...	...	...	...	...	...	...	..	...	...	...	...	20	9	...	..	

TABLE I.—

DISEASE.	Age.	0—				5—				10—				20—				30—			
	Total.	Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.	
		M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F	M	F
DISEASES OF ARTICULATORY SYSTEM—*continued.*																					
149. Knee-joint—*continued.*																					
(*b*) Internal derangement	41	...	...	...	...	..	...	...	...	8	1	...	...	10	4	...	...	10	2	...	...
(*c*) Acute synovitis and arthritis	10	...	1	...	...	2	...	...	...	...	1	...	...	1	3	...	...	...	...	...	...
(*d*) Chronic synovitis and arthritis	9	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	3	...	...
(*e*) Ankylosis and various	6	...	...	...	...	...	...	...	...	1	...	...	...	1	1	...	...	1	...	...	...
150. Ankle and tarsal joints—																					
(*a*) Tuberculous	7	...	...	...	...	...	1	...	...	3	...	...	...	2	...	...	...	1	...	...	...
(*b*) Acute arthritis	3	1	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*c*) Chronic arthritis	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
151. Various affections of joints	9	...	...	...	...	...	...	...	...	1	1	...	...	3	...	...	...	2	1	...	...
DEFORMITIES.																					
152. Talipes	25	1	1	...	...	2	2	...	...	8	8	...	...	2	...	...	...	...	...	...	...
153. Torticollis	6	1	...	...	...	1	1	...	...	1	1	1	...	...	...	...	...	...	...	...	...
154. Genu valgum	8	1	...	...	...	...	1	...	...	3	1	...	...	...	1	...	...	1	...	...	...
155. Cicatricial contracture	5	...	...	...	...	...	1	...	...	1	2	...	...	...	...	...	...	...	...	...	...
156. Hammer-toe	16	...	...	...	...	...	...	...	...	3	1	...	...	3	3	...	...	4	2	...	...
157. (*a*) Pes cavus	5	...	...	...	...	...	...	...	...	1	2	...	...	2	...	...	...	...	...	...	...
157. (*b*) Pes planus	9	...	...	...	...	...	...	...	...	2	2	...	...	1	2	...	...	1	1	...	...
157. (*c*) Hallux valgus and rigidus	8	...	...	...	...	...	...	...	...	1	...	...	...	1	5	...	...	...	...	...	...
158. (*a*) Dupuytren's contracture	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
158. (*b*) Coxa vara	4	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...	...	...
158. (*c*) Infantile paralysis of legs	4	...	...	...	...	...	1	...	...	...	3	...	...	...	...	...	...	...	...	...	...
158. (*d*) Ingrowing toe-nail	8	...	...	...	...	...	...	...	...	2	...	...	...	2	1	...	...	2	1	...	...
158. (*e*) Various	12	...	1	...	...	1	1	...	...	3	2	...	...	...	3	...	...	...	1	...	...
MALFORMATIONS.																					
159. Harelip and cleft palate	21	11	5	...	...	2	1	...	...	...	2	...	...	...	...	...	...	...	...	...	...
160. Malformations of head and neck—																					
(*a*) Cervical rib	9	..		...	...	...	...	...	...	...	1	..	...	...	3	...	...	...	...	...	...
(*b*) Branchial and thyroglossal cysts	4	...	1	...	...	...	2	..	..	..	1	..	...	...	...	...	...	..	...	...	...
(*c*) Malformation of nose	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Discha.		Died		Discha.		Died.		Discha.		Died.		Discha.		Died.		
M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	
3	2	...	...	1	...	...	...	...	...	...	...	32	9	...	...	
1	...	...	...	1	...	...	...	...	...	...	...	5	5	...	...	
..	1	...	...	2	...	...	...	...	...	..	...	4	5	...	...	
1	1	...	...	...	...	...	...	...	...	...	...	4	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	6	1	...	...	
...	...	...	.	...	...	...	...	...	...	...	..	1	1	1	...	
...	...	...	...	...	...	...	...	...	...	..	...	1	...	...	...	
...	...	...	...	...	1	...	...	...	...	...	...	6	3	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	13	12	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	3	2	1	...	
...	...	...	...	...	...	...	...	...	...	...	...	5	3	...	...	
1	...	.	...	...	...	...	...	...	...	...	...	2	3	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	10	6	...	...	
...	...	...	...	...	...	...	...	...	..	...	...	3	2	..	...	
1	...	...	...	...	...	...	...	...	...	...	...	5	4	...	...	
...	...	...	...	...	...	...	...	..	..	...	...	2	6	...	...	
1	...	...	...	1	...	...	...	1	...	.	...	3	...	...	...	
...	...	...	...	..	...	...	...	...	...	...	...	4	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	6	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	4	8	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	13	8	...	..	
1	3	...	...	...	1	...	...	...	...	...	...	1	8	...	...	
...	...	...	...	...	...	..	...	...	...	...	...	...	4	...	...	
...	...	...	...	...	...	...	..	...	...	...	...	...	..	1	...	

TABLE I.—

DISEASE.	Age.	Total.	0— Dischd. M.	0— Dischd. F.	0— Died. M.	0— Died. F.	5— Dischd. M.	5— Dischd. F.	5— Died. M.	5— Died. F.	10— Dischd. M.	10— Dischd. F.	10— Died. M.	10— Died. F.	20— Dischd. M.	20— Dischd. F.	20— Died. M.	20— Died. F.	30— Dischd. M.	30— Dischd. F.	30— Died. M.	30— Died. F.
MALFORMATIONS—*continued*																						
161. Malformations of trunk—																						
(*a*) Imperforate anus		2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*b*) Spina bifida		9	3	1	2	2	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
(*c*) Various		2	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
162. Malformations of limbs—																						
(*a*) Congenital dislocation of hip		3	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*b*) Congenital contracture of finger		1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
DISEASES OF THE AUDITORY SYSTEM.																						
163. Chronic suppuration of the middle ear and mastoid		60	1	...	...	...	3	6	...	...	12	11	...	...	9	7	...	...	3	2	...	...
164. Acute mastoid suppuration—		49	3	3	2	...	3	8	...	...	10	6	1	1	2	3	...	...	2	1	1	...
(*a*) With intra-cranial abscess		9	...	1	...	...	...	...	...	2	1	2	...	...	...	...	1	1	...	...	...	...
165. (*a*) Acute otitis media		9	...	...	...	...	1	2	...	...	2	1	...	...	...	2	...	...	...	...	...	...
165. (*b*) Acute otitis externa		3	1	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
165. (*c*) Mastoid sinus		5	...	1	...	...	...	...	...	...	1	2	...	...	1	...	...	...	...	...	...	...
165. (*d*) Auditory, various		6	1	...	...	...	...	1	...	...	1	...	...	...	1	1	...	...	1	...	...	...
DISEASES OF THE NERVOUS SYSTEM.																						
166. Cerebral hæmorrhage		7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
167. (*a*) Cerebral thrombosis		3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...
167. (*b*) Cerebral embolism		1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
168. Cerebral and spinal syphilis		27	...	1	...	...	...	1	...	...	...	...	...	...	3	...	...	...	6	3	...	...
169. Cerebral, various—																						
(*a*) Mental diseases		7	...	...	...	...	1	...	...	...	...	2	...	...	1	...	...	...	...	...	...	...
(*b*) Headache		2	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
(*c*) Encephalitis		1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*d*) Hydrocephalus		2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*e*) Cerebral anæmic attacks		1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...
(*d*) Fits after cerebral abscess		1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
(*e*) Paralysis agitans		1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
...	...	..	...	...	..	...	...	...	...	...	...	2	...	...	...	
...	...	..	...	...	...	..	...	...	...	...	...	4	1	2	2	
...	...	..	...	...	...	...	...	...	...	...	...	2	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	
...	...	...	..	...	...	...	...	...	...	...	...	...	1	...	...	
3	1	...	...	...	2	...	...	...	...	...	...	31	29	...	...	
1	...	...	...	1	...	..	1	...	...	...	...	22	21	4	2	
1	...	...	...	...	...	...	...	...	...	...	...	2	3	1	3	
...	...	...	...	...	1	...	...	...	...	...	...	3	6	...	...	
...	...	...	...	...	...	...	...	..	...	...	...	3	...	...	..	
...	...	...	...	...	...	...	...	...	..	...	...	2	3	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	4	2	...	...	
...	...	1	...	...	...	3	...	1	...	1	...	1	...	6	...	48
...	...	...	...	1	...	...	...	1	...	...	...	2	...	1	...	
...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	1	48, 50, 51
5	2	1	...	4	1	...	...	...	1	...	...	17	9	1	...	
2	...	...	...	1	...	...	...	...	...	...	...	5	2	...	...	
...	...	...	...	...	...	...	...	..	...	..	...	1	1	...	...	
...	...	..	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	..	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	...	...	...	1	...	...	...	...	...	..	...	1	...	..	...	

TABLE I.—

DISEASE.	Total.	Age 0— Discld. M.	Discld. F.	Died. M.	Died. F.	5— Discld. M.	Discld. F.	Died. M.	Died. F.	10— Discld. M.	Discld. F.	Died. M.	Died. F.	20— Discld. M.	Discld. F.	Died. M.	Died. F.	30— Discld. M.	Discld. F.	Died. M.	Died. F.
DISEASES OF THE NERVOUS SYSTEM—*continued.*																					
170. Chorea	18	...	...	...	...	1	2	...	...	3	11	...	...	...	...	...	1	...	...	...	...
171. Disseminated sclerosis	13	...	...	...	...	...	...	...	...	3	...	...	...	...	2	...	...	2	3	...	...
172. (*a*) Idiopathic epilepsy	5	...	...	...	...	...	...	...	...	2	...	...	...	1	1	...	...	...	...	...	...
172. (*b*) Jacksonian epilepsy	6	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	2	...	...	...
172. (*c*) Convulsions	8	5	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
173. Neurasthenia and hysteria	39	...	...	...	...	...	1	...	...	2	4	...	...	2	13	...	...	4	6	...	...
174. General paresis	9	...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	3	1	...	...
175. Hemiplegia	5	1	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
176. Anterior poliomyelitis	13	...	2	...	...	2	1	...	...	3	1	...	...	1	...	...	...	3	...	...	...
177. Intra-cranial tumour	14	...	1	...	...	...	1	1	...	1	...	1	...	...	1	...	...	...	1	1	1
178. Tuberculous meningitis	15	...	...	5	3	1	...	2	1	...	...	1	1	...	...	...	...	...	...	1	...
179. Meningitis (non-tuberculosis)	12	1	2	2	2	...	1	...	...	1	...	...	2	...	...	...	...	...	...	...	1
180. Paraplegia	9	...	1	...	...	...	...	...	...	1	1	...	...	1	...	...	...	3	...	...	...
181. Neuralgia and sciatica	17	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	3	1	...	...
182. Facial palsy	2	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
183. Polyneuritis—																					
(*a*) Alcoholic	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...
(*b*) Diphtheritic	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
184. Tabes	20	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	7	...	...	...
185. Various nerve diseases—																					
(*a*) Friedreich's sataxy	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...
(*b*) Syringomyelia	2	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...
(*c*) Spinal tumour	2	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
(*d*) Progressive muscular atrophy	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*e*) Spina-bifida occulta	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*f*) Spinal hæmorrhage	1	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
(*g*) Landry's paralysis	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
(*h*) Diffuse myelitis	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...
INJURIES.																					
186. Injuries to the head—																					
A. Fractured vault of skull—																					
(*a*) Simple fissured	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*b*) Compound fissures	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
(*c*) Depressed	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...

continued.

40—				50—				60 and upwards.				Total result.				CROSS REFERENCES.
Discld.		Died.		Discld.		Died.		Discld.		Died.		Discld.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
...	...	...	...	...	...	...	...	...	...	...	...	4	13	...	1	
1	1	...	1	...	...	...	...	...	...	...	...	6	6	...	1	
...	...	...	...	...	...	...	...	...	1	...	...	3	2	...	...	
2	...	...	...	1	...	...	...	...	...	...	...	5	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	5	3	...	...	
3	3	...	...	...	...	...	...	...	1	...	...	11	28	...	...	
1	...	...	...	1	...	1	..	...	...	...	...	7	1	1	...	
1	...	...	...	...	...	...	.	...	...	...	...	2	3	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	9	4	...	...	
...	...	1	...	...	...	...	...	...	...	1	...	1	4	8	1	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	9	5	25
...	...	...	...	...	...	...	...	...	...	...	...	2	3	2	5	37, 41
1	...	...	...	1	...	...	...	...	...	...	...	7	2	...	...	
...	4	...	...	4	3	...	...	1	...	...	...	8	9	...	...	
...	...	...	...	...	1	...	...	...	...	...	...	...	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	..	2	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
5	1	...	...	4	1	...	...	...	...	...	...	18	2	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	2	...	...	...	
...	1	...	...	...	...	..	...	...	...	...	...	1	1	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	...	2	...	...	
...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	...	1	.	...	
2	...	1	...	1	...	...	1	...	...	...	...	3	...	1	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	

TABLE I.—

DISEASE.	Total.	Age. 0— Discld. M	0— Discld. F	0— Died. M	0— Died. F	5— Discld. M	5— Discld. F	5— Died. M	5— Died. F	10— Discld. M	10— Discld. F	10— Died. M	10— Died. F	20— Discld. M	20— Discld. F	20— Died. M	20— Died. F	30— Discld. M	30— Discld. F	30— Died. M	30— Died. F
INJURIES—*continued.*																					
186. Injuries to the head—*continued.*																					
B. Fractured base of skull	10													1				2			
C. Fractured vault and base	6			1													1				
D. Fractured jaw	4														1			3			
E. Fractures and injuries of face	3									1				1					1		
F. Hæmatoma of scalp	3	1	2																		
G. Other injuries	8	2				3				1					1						
H. Concussion	54	2	1			7	4			10	1			5	3			9			
187. Injuries to the neck—Cut throat	8															1		1			
188. Injuries to the upper limb—																					
A. Fractures—																					
(1) Clavicle	1																				
(2) Humerus	21		1			3	6			2	3							1			
(3) Radius and ulna	8					1	1			2											
(4) Olecranon	7									2								2			
(5) Bones of hand	4													1	1			1	1		
B. Other injuries—																					
(1) Cut tendons	17									4	1			3	2			4	1		
(2) Foreign bodies in hand	3														1				1		
(3) Wounds and crushes	13								1	1				2	2			3		1	
(4) Various	3																				
189. Injuries of thorax—																					
(1) Fractured ribs	8							1						1					1		
(2) Contusions	2																	1			
190. Injuries to the abdomen—																					
(*a*) Injury to intestines	1					1															
(*b*) Injury to spleen	2									1	1										
(*c*) Perforating wounds	4											1				1		1			
(*d*) Contusions	8						1			2				2				1			
191. Injuries to the genito-urinary system—																					
(*a*) Kidney	5	1					1							2							
(*b*) Urethra	5					1				3											
(*c*) External genitalia	4									1	1			1							

continued.

40—				50—				60 and upwards.				Total result				CROSS REFERENCES.
Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.		
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
2	1	1	...	2	...	1	...	...	...	...	...	7	1	2	...	
...	...	...	...	...	...	2	...	...	...	2	...	...	...	5	1	
...	...	...	...	...	...	...	...	...	...	...	...	3	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	...	
...	...	...	...	1	...	...	...	...	...	...	...	7	1	...	...	
2	...	...	...	1	4	...	...	3	2	...	...	39	15	..	...	
2	1	...	...	...	1	...	...	1	1	...	...	4	3	1	...	
...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	
1	...	...	...	2	1	...	...	1	...	...	...	10	11	...	...	
2	...	1	...	...	1	...	...	..	...	...	...	5	2	1	...	
3	...	...	...	...	...	...	...	...	...	...	...	7	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	2	2	...	...	
1	...	...	...	...	1	...	...	...	...	...	...	12	5	...	...	
...	1	...	...	...	...	...	...	...	...	...	...	...	3	...	...	
1	1	...	...	1	...	...	...	...	...	...	...	8	3	1	1	
1	...	...	..	1	...	...	...	1	...	...	...	3	...	...	...	
1	...	2	...	1	...	...	...	1	...	...	...	4	1	3	...	
...	...	...	...	1	...	...	...	...	...	...	...	2	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	...	
...	...	...	..	...	...	...	...	...	...	1	...	1	...	3	...	
2	...	...	...	...	...	.	...	...	...	...	...	7	1	...	...	
...	...	...	...	...	...	...	...	...	...	1	...	3	1	1	...	
1	...	...	...	...	...	...	...	...	...	...	...	5	..	...	...	
...	...	...	...	1	...	...	...	...	...	...	...	3	1	...	...	

TABLE I.—

DISEASE.	Total.	Age 0— Disch. M	Disch. F	Died. M	Died. F	5— Disch. M	Disch. F	Died. M	Died. F	10— Disch. M	Disch. F	Died. M	Died. F	20— Disch. M	Disch. F	Died. M	Died. F	30— Disch. M	Disch. F	Died. M	Died. F
INJURIES—*continued.*																					
192. Injuries to the pelvis—Fractures.	3																				
193. Injuries to the lower extremity—																					
A. Fractures—																					
(1) Femur—																					
(*a*) Neck	7									1				1				1			
(*b*) Shaft	39	8	2			9				8				3				2			
(*c*) Supra-condylar	1																				
(2) Patella	29													2	2			5	2		
(3) Tibia	20					4	2				1			1	1			4			
(4) Fibula	7		1											1				1	2		
(5) Tibia and fibula—																					
(*a*) Simple	49	1	1			4				5				6	2			7	2		
(*b*) Compound	10					1								1				3			
(6) Pott's fracture	20																	3	3		
(7) Other fractures	4													2				1			
B. Other injuries—																					
(1) Injuries to muscles and tendons	3													1							
(2) Contusions	11									1					2			1	1		
(3) Wounds and crushes	10	1				1				1				1		1		2	1		
(4) Foreign bodies	4									2				1					1		
194. Injuries to the back—																					
(*a*) Fractured spine	6															1		3		1	
(*b*) Contusions	6													2							
195. Injuries to joints—																					
A. Dislocations—																					
(1) Clavicle	1													1							
(2) Shoulder	8																				
(3) Elbow	1					1															
(4) Thumb	3					1				1											
(5) Hip	2					1															
(6) Other joints	3									1				1							
B. Perforating wounds	1													1							
C. Foreign bodies	3					1				1									1		
D. Contusions	3													1				1			
196. Injuries to nerves	5									1					1				1		
197. (*a*) Ununited fractures	6													1	1				1		
197. (*b*) Malunited fractures	12				1					2				1	1			1			

continued.

40—				50—				60 and upwards				Total result.			
Discha.		Died.		Discha.		Died.		Discha.		Died.		Discha.		Died.	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
.	...	..	...	1	..	..	...	1	...	1	...	2	...	1	...
...	...	...	...	3	1	...	...	...	...	...	...	6	1	...	...
2	1	2	...	2	...	...	..	...	...	...	...	34	3	2	..
...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	...
7	4	...	...	3	3	...	...	...	1	...	...	17	12	...	...
5	...	..	...	2	...	...	.	...	...	...	...	16	4	...	...
...	...	...	..	1	1	...	...	...	...	...	...	3	4	...	...
9	1	...	...	8	3	...	...	...	...	...	...	40	9	...	...
...	...	1	...	1	...	1	.	1	1	...	...	7	1	2	...
3	6	...	...	2	2	...	...	1	...	...	...	9	11	...	...
1	...	..	...	...	...	...	...	...	...	...	...	4	...	...	...
...	...	..	...	1	...	...	...	1	...	...	...	3	...	...	...
4	1	...	...	1	...	...	...	...	...	...	...	7	4	...	...
1	...	...	...	1	...	...	...	...	...	...	...	8	1	1	...
...	...	...	...	..	...	..	...	...	...	...	...	3	1	...	...
1	...	...	...	...	...	...	...	...	...	...	...	4	...	1	1
2	...	...	...	2	...	...	...	.	...	...	...	6	...	...	...
...	...	...	...	..	..	...	...	...	...	...	...	1	...	...	...
1	...	...	...	2	1	...	...	3	1	...	...	6	2	...	...
...	...	...	.	...	...	...	...	...	...	...	...	...	...	...	...
1	...	...	...	..	...	...	...	...	...	...	...	3	...	...	...
..	...	..	...	1	...	...	...	...	...	...	...	2	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	2	1	...	...
...	...	...	...	..	...	...	...	...	...	...	...	1	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	1	2	..	...
...	...	...	...	.	..	...	...	1	...	...	...	3	...	..	...
1	...	...	...	1	...	...	...	...	...	...	...	3	2	...	...
2	...	..	..	...	...	...	...	...	1	...	...	3	3	...	...
1	1	...	...	1	2	...	...	...	1	...	...	7	5	...	...

CROSS REFERENCES.

TABLE I.—

DISEASE.	Total.	Age. 0— Discld. M.	Discld. F.	Died. M.	Died. F.	5— Discld. M.	Discld. F.	Died. M.	Died. F.	10— Discld. M.	Discld. F.	Died. M.	Died. F.	20— Discld. M.	Discld. F.	Died. M.	Died. F.	30— Discld. M.	Discld. F.	Died. M.	Died. F.
INJURIES—*continued.*																					
198. (*a*) Burns	25	2	2	2	...	2	1	1	2	2	...	1	2	3	1	...	...	...	...	...	...
(*b*) Scalds	21	4	6	3	1	3	...	...	...	2	...	...	...	2	...	...	...	...	...	...	...
199. POISONS—																					
Oxalic acid	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Hydrochloric acid	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Corrosive poison	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Carbolic acid	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Atropine	8	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...
Morphia	9	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Food-stuff	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Alcohol	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lead	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	.	...	...
Ammonia	2	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Embrocation	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Cocaine	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Coal-gas	1	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...
Aniline dye	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
200. UNCLASSIFIED—																					
Tapeworm	5	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...
Round-worm	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Thread-worms	1	...	...	...	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...
Functional vomiting	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ataxia (? cause)	1	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Eosinophilia	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Whitlow	3	...	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	..
Chronic tetany	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Not diagnosed (no P.M.)	2	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...
Various trivial complaints	21	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

continued.

40—				50—				60 and upwards.				Total result				CROSS REFERENCES.
Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		Dischd.		Died.		
M.	F.	M.	F.	M.	F.	M.	F	M.	F.	M.	F.	M.	F.	M.	F.	
1	...	...	1	...	1	...	...	...	...	...	1	10	5	4	6	
...	...	...	...	...	...	...	...	...	...	...	...	11	6	3	1	
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...	...	...	...	...	...	...	...	...	...	...	...	1	2	...	1	
...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	1	
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...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	
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ABSTRACTS AND REMARKS.

The numbers at the commencement of each paragraph correspond with those in Table I.]

GENERAL DISEASES.

1. Anæmia.

(*a*) Pernicious Anæmia.—Ten cases, none of which were fatal. Three were re-admissions.

Treatment.—Liquor arsenicalis in all cases; atoxyl in 3; "606" in one.

Cases of interest.

W. B—, *male, æt.* 45, was in this hospital 8 months ago. Two and a half years' history. On admission, red count 1,516,000, hæmoglobin 35 per cent., colour index 1·1. On discharge, after treatment with liquor arsenicalis and atoxyl, red count 531,250, hæmoglobin 10 per cent., colour index 1·0. Irregular pyrexia throughout.

H. F—, *male, æt.* 40 (readmission), 18 months' history. No improvement after 5 months' treatment with atoxyl, salvarsan, hydrochloric acid and injections of quinine. On discharge, red count 1,175,000, hæmoglobin 30 per cent.

A. J. P—, *male, æt.* 15, had been treated as phthisis for 4 months. No evidence of phthisis now. Red count 2,440,000, hæmoglobin 55 per cent., colour index 1·4, white count 1540. One megaloblast seen. Very little improvement on arsenical treatment.

(*c*) Splenic Anæmia.—Six readmissions. In three cases red count was less than 3,000,000; and in 4 cases white count was less than 9000.

J. B—, *male, æt.* 42. No history of alcohol or syphilis. Liver and spleen both slightly enlarged and very hard. Well-marked bronzing of exposed parts. Red count 4,775,000, hæmoglobin 90 per cent., white count 2160 (polymorphonuclears 48 per cent., eosinophiles 2·5 per cent., small lymphocytes 38·7 per cent., large lymphocytes 6·7 per cent.).

(*d*) Secondary Anæmia.—Anæmia secondary to dyspepsia, 3; to rheumatism, pyorrhœa, constipation, 1 each; of undetermined origin, 2.

2. Debility.

One case was due to lack of nourishment. One followed a fever in S. Africa. One was a doubtful case of carcinoma of the stomach. One occurred in a patient with doubtful pulmonary tuberculosis but the tuberculin reaction was negative.

3. (*a*) Diabetes.

Most of the cases were of long duration. One gave a history of 14 years.

In only one patient was a family history obtained, a woman, æt. 43, whose father, brother and sister had diabetes. Cammidge Test C was tried in 5 cases; it was negative in 4 and positive in 1. Acetone was present in both the fatal cases and in 5 non-fatal cases. Retinitis was present in 1 case, and cataract in 1 case.

Of the fatal cases, one died with coma, and the other with advanced pulmonary tuberculosis. No microscopical changes were noted in the pancreas, but in one case a gall-stone was present in the gall-bladder.

(*b*) Glycosuria.—One patient also had pulmonary tuberculosis.

4. Diphtheria.

Faucial: 13 non-fatal, 2 fatal. Faucial and laryngeal: 8 non-fatal, 2 fatal. Laryngeal: 12 non-fatal, 7 fatal. Nasal: 2 non-fatal. Total fatal cases, 11—*i. e.* mortality 23·9 per cent. Of 31 cultures taken 16 were positive.

Tracheotomy was performed in 19 cases, and 8 of these were fatal. Intubation was performed in 6 cases, but in 3 of these tracheotomy had to be performed later, and 1 case proved fatal.

Of the fatal cases 2 were complicated with broncho-pneumonia, 2 with hæmorrhage after tracheotomy, 1 with uræmia, and 1 with measles.

Of the 4 adult cases, two were hospital nurses, one a student, and the fourth a medical practitioner.

5. Enteric Fever.

There were 7 cases. None were fatal. In 5 cases the Widal reaction was positive, in 2 it was negative. Of these 2, one gave a negative Widal reaction on the 9th and 17th days, but the diagnosis was not in doubt. The other gave a negative Widal reaction on the 10th day, but a pure culture of typhoid bacilli was grown from the blood.

Three were acute cases; of these—

(1) *Girl, æt.* 14. Admitted 7th day of disease. Temperature remained normal after the 40th day. On 24th day of disease patient had a rigor but her pulse was 88 and her temperature fell to 95.

(2) *Boy, æt.* 14. Admitted 8th day of disease. Treated with serum (4 doses). Temperature remained normal after 20th day.

(3) *Girl, æt.* 12. Admitted 10th day. Melæna 17th day. Recurrence 22nd day. Temperature normal after 31st day.

Of the other 4 cases—

(1) *A boy, æt.* 7, who had been treated 7 weeks before for sunstroke, Widal now positive. In this case the boy's father also had the disease and died elsewhere. His brother was in hospital convalescent from enteric.

(2) Patient sent from Stockwell as a possible perforation of intestine. Proved to be dilated stomach.

(3) Patient with positive Widal reaction who had had enteric 4 months previously.

(4) Typhoid perichonditis of rib. *Bacillus typhosus* in pus. Widal positive. No bacilli in urine or fæces.

6. Erysipelas.

Recurrent, 1; cellulo-cutaneous type, 4; with abscess formation, 7.

Areas affected.—Scalp, 3; face, 17; extremities, 20; scrotum, 1.

Treatment.—Powder and dry dressings, 18; hot dressings, 8; saturated magnesium sulphate solution, 6; ichthyol ointment, 3; anti-streptococcal serum, 1.

Fatal cases.—4 (alcoholism, 1; pyæmia, 1; toxæmia, 2).

7. Pyrexia.

There were 5 cases with fever with no physical signs to account for it. All the cases recovered. Two were probably influenza. One was admitted as a possible case of enteric, and one as meningitis. The other case, a *man, æt.* 45, had a history of weakness for 6 weeks, with some impairment of the note over the apex of the right lung. Von Pirquet reaction positive. An irregular pyrexia persisted until discharge.

8. Gonorrhœa and Gonorrhœal Rheumatism.

All were cases of articular disease. Gonococci found on aspiration in one case.

Treatment.—Gonococcal vaccine, 1; anti-streptococcal serum administered *per rectum*, 2; hot air baths, 1; injection of liquid paraffin into joint, 1.

9. Gout.

There were 4 cases. Three were acute, and improved rapidly under colchicum. Of these, 2 had albuminuria, and one marked arterio-sclerosis. The fourth case was one of chronic gout, with multiple gouty arthritis, deposits in the ear and arterio-sclerosis. No history of lead poisoning was obtained.

10. Influenza.

Of the 12 cases 5 complained of abdominal pain. All cases yielded rapidly to treatment and none were in hospital more than 16 days. There were no complications.

11. Leukæmia.

(*a*) Myelæmia.—One fatal case. *Boy, æt.* 18. Had been in hospital several times previously. In October, 1910, blood-count was—red blood-corpuscles 2,475,000, hæmoglobin 25 per cent., leucocytes 47,600, myelocytes 7 per cent. Slight improvement under X rays and arsenic, but the spleen remained much enlarged.

In June, 1911, the spleen reached two inches below the umbilicus. Blood-count August, 1911, was—red blood-corpuscles 3,212,500, hæmoglobin 30 per cent., leucocytes 31,640, myelocytes 17·5 per cent. Patient became lethargic and wasted considerably before death in November, three years after the onset of his disease.

Of the non-fatal cases, one, *female, æt.* 60, had rodent ulcer five years, treated successfully with X rays. Spleen three inches below umbilicus, treated with poor success with X rays and arsenic. Blood-count, red blood-corpuscles 3,631,250, hæmoglobin 60 per cent., leucocytes 183,000, myelocytes 23 per cent. On discharge, myelocytes 2·7 per cent.

(*b*) Lymphæmia.—All females. Two chronic cases were discharged.

(1) Red blood-corpuscles 3,918,700, leucocytes 9060, 82 per cent. lymphocytes. Enlarged glands present. Spleen moderately enlarged. Treated with atoxyl.

(2) Spleen not enlarged. Glands present in neck and groins. Leucocytes 21,080. Lymphocytes 56·8 per cent. Improved under arsenic.

(3) Fatal case. *Woman, æt.* 24. Admitted with mitral stenosis and enlarged spleen. Hæmorrhage from gums. Petechiæ. Leucocytes 293,000. Lymphocytes 98·8 per cent. Illness lasted 27 days only.

Post-mortem.—Spleen showed lymphatic infiltration. Bone-marrow, lymphoid. Petechial hæmorrhages in viscera. Old endocarditis.

12. Lymphadenoma.

Diagnosis in all cases confirmed by microscopical examination.

The two non-fatal cases were in children who showed some improvement under arsenic.

Of the fatal cases (1), *male, æt.* 37. History, 9 months. Relapsing type of pyrexia; during the febrile attacks the glands became much enlarged. The attacks became more frequent. Death due to broncho-pneumonia. All glands, spleen and liver much enlarged.

The other two fatal cases were treated with "606" but without benefit.

13. Malaria.

Parasites were present in 1 case only. In 4 cases the spleen was enlarged; in 1 case it was not palpable. In each case there was much improvement under quinine.

14. Marasmus.

Of 15 cases, 10 died. All were infants under two years.

15. Measles.

Twenty-one cases with 4 fatal. Of the 8 adult cases 5 were in nurses and 2 students of the hospital.

Of the fatal cases, 1 had tuberculous peritonitis, 1 complicated diphtheria, and 2 broncho-pneumonia. The cases of German measles were in 2 nurses and 1 student.

16. Pyæmia.

Two cases of chronic multiple pyæmic abscesses.

(1) *Woman, æt.* 36. Abscess in chest-wall, followed two weeks later by right perinephric abscess. Later abscesses occurred in the scalp and breast. All these were drained. Patient then developed weakness of left arm and leg with nystagmus, and an abscess was opened in the right temporo-parietal region. A pneumothorax then occurred on the left side, and 2½ pints of pus were evacuated by aspiration. A rib was resected later. After seven months in hospital patient had improved sufficiently to be discharged. A streptococcus was grown.

17. Purpura.

Of 9 cases of simple purpura there was a history of past rheumatic fever in 1 case only. Seven had joint pains, 4 hæmaturia, 4 melæna, 2 hæmatemesis and 1 bleeding from the gums. The spleen was felt in 1 case only. There were 6 cases of Henoch's purpura. In these cases abdominal pain was noted in 5 and there was a history of abdominal pain in the 6th. Hæmaturia and albuminuria was present in 5 cases. Joint pains in 4. Melæna in all cases. Two of the cases had had previous attacks.

Fatal case.—Boy, æt. 18. Sudden onset with hæmorrhagic petechiæ, bleeding from gums and hæmaturia.

Post-mortem.—Blood-stained fluid was found in the pleural cavity. Spleen, liver and lymph-glands were enlarged. There was brown atrophy of the heart.

18. Acute Rheumatism.

There were 64 cases, 2 of which were fatal. In both the fatal cases there was hyperpyrexia. Thirty-five cases gave no history of a previous attack of rheumatism, and of these 14 left the hospital without a cardiac lesion. Of the remainder 3 had pericarditis, 1 aortic and mitral disease, and the others mitral disease. 18 had had one previous attack, and of these cases 15 had cardiac disease. 9 had had more than one previous attack, and 7 of these had cardiac disease.

In all, 43 of the 62 non-fatal cases had a cardiac lesion on discharge from the hospital, 33 had mitral regurgitation, 2 mitral stenosis, 5 mitral regurgitation and stenosis, and 3 aortic and mitral disease. There were 4 cases of acute pericarditis. One patient had a purpuric rash, and gave a history of having had a similar rash in a previous attack.

19. Rheumatoid Arthritis.

Seven cases in which many joints were involved. Two cases in which the large joints only were affected. One case in which the finger-joints only were involved. In 3 cases the spine was affected. In 1 case the right knee, and in another an ankle alone were affected.

Female, æt. 29. Leucorrhœa recently. Two and a half years ago the joints of the fingers were affected, later the knees, shoulders and ankles were involved. On admission patient was unable to walk without aid. Patient was in hospital for three months and was treated with radiant heat-baths. She was able to walk unaided on discharge.

20. Rickets.

One child was admitted with rickets and acute bronchitis. One with summer diarrhœa. Two with deformities. The other patient was admitted with bronchitis, which proved to be measles.

There were no fatalities.

21. Scarlet Fever.

Two cases only, one a nurse who was treated in the hospital, the other a house officer who was transferred to a fever hospital. Both recovered.

23. Syphilis.

Congenital, 2; primary, 3 (penile chancre 1, chancre of lip, 1, chancre of thigh, 1); secondary, 9; tertiary, 1. The Wassermann reaction was positive in all the cases tested (6).

Ten cases were treated by intra-venous injection of salvarsan.

24. Tetanus.

Following cut foot, 1; cut wrist, 1; no primary lesion found, 2.

Treated by intra-thecal injection of anti-tetanic serum, 3 (2 recovered, 1 died).

Case 1.—*Male, æt.* 9. Cut foot whilst paddling in a pond fourteen days before admission. History of twenty-four hours' stiffness of jaw. On admission a small suppurating wound was found on the foot, trismus and stiffness of the

neck and trunk with "risus sardonicus" were present. The local wound was treated with hydrogen peroxide, and two intra-thecal injections of 10 c.c. anti-tetanic serum were given on successive days. Potassium bromide and chloral were given *per rectum*. Nasal feeding under chloroform was necessary for some days. The child recovered but had still some stiffness of the limbs on discharge.

Case 2.—*Male, æt.* 3. History given of three days' trismus and two days' general spasmodic convulsions. On admission no primary lesion could be found. There was well-marked trismus and stiffness of the neck, and general rigidity with opisthotonos ensued on examination. One intra-thecal injection of 10 c.c. anti-tetanic serum was given, and feeding was carried out by the nasal tube under an anæsthetic. Tetanic spasms continued for four days. Recovery.

Fatal cases.

Case 3.—*Male, æt.* 33. One week's stiffness of the neck and jaws, and two days' general spasms. He was admitted moribund, with marked trismus and opisthotonos. An intra-thecal injection of anti-tetanic serum was given under anæsthesia, but death occurred two hours after admission. P.M.—A large abscess cavity was present in the left lung (no culture taken). Vessels of pia arachnoid dilated and some œdema of brain present.

Case 4.—*Male, æt.* 41. Colles' fracture with small wound of wrist six days. He gave a history of pain and stiffness in the neck for twelve hours. No general spasms had occurred. Immediately after admission a severe respiratory spasm occurred. Chloroform was given and the larynx was intubated without relief. Tracheotomy followed by laparotomy and heart massage was tried but the patient did not recover. P.M. at coroner's court.

25. General Tuberculosis.

One patient was admitted with tuberculous peritonitis and was readmitted one month after discharge with general tuberculosis.

Two cases were of clinical broncho-pneumonia.

Six were clinical tuberculous meningitis. All of these were lumbar punctured and in 5 small lymphocytes were the predominant cells. In the sixth no cells were seen.

26. Acute Abscess.

Situation.—Extremities, 24; ischio-rectal and anal, 21; trunk, 17; neck, 10; mammary, 5; groin, 4; residual in scar, 4; following bone necrosis, 3; alveolar, 3; paranephritic, 3; peritonsillar, 2; periurethral, 1; parotid, 1.

Organisms present.—*Staphylococcus aureus,* 11; *Streptococcus pyogenes,* 8; mixed infections, 3; *Staphylococcus albus,* 2; sterile, 2; pneumococcus, 1; *B. proteus,* 1; *B. pyocyaneus,* 1.

Fatal cases (3 *males*).

(1) *Male, æt.* 16. Retropharyngeal abscess following sublingual suppuration. Death from gangrene of lung (both bases) and pericarditis.

(2) *Male, æt.* 1 *month.* Scrotal abscess. Death from toxæmia. No P.M.

(3) *Male, æt.* 30. Abscess of thigh following old bone necrosis. Secondary hæmorrhage occurred from incisions. Death from exhaustion and toxæmia. No P.M.

27. Chronic Abscess.

Situation.—Neck, 24; extremities, 17; trunk, 15; psoas, 3 (see also under Caries of Spine); gluteal, 1; multiple, 5.

Chronic bone infection with *Staphylococcus aureus*, 2.

28. Cellulitis.

Situation.—Extremities, 33; neck, 16; trunk, 3; scalp, 1.

Also suppurative teno-synovitis, 1; developed post-nephritic abscess, 1.

Other complications.—Carbuncle, 1; erysipelas, 1; gangrene of fingers, 1.

Fatal cases. Causes of death.—Erysipelas, 1; septicæmia and toxæmia, 3; pneumonia, 1; superior mediastinitis and secondary abscesses of kidney, 1.

29. Sinus.

Lumbar, 4; abdominal, 3; supra-pubic, 1; tuberculous sinus of neck, 2; of thigh, 1; of hip, 2; sinus from wire in bone, 2; empyema sinus, 1.

30. Carbuncle.

Neck, 8; back, 1.

Developed secondary erysipelas, 1.

31. Various General Diseases.

One case of Ménière's disease.—*Male, æt.* 28. Giddiness and vomiting for two years. Frontal headache one year. Increasing deafness in right ear. Nystagmus at times and always marked after patient had been twirled round on a music stool. No optic neuritis. No vomiting in hospital. Wassermann reaction negative. One case of actinomycosis.—*Male, æt.* 45. Losing weight for six months. Abdominal pain three weeks. Admitted January 31st; tumour felt below umbilicus in middle line. Laparotomy was performed and an intra-peritoneal abscess drained. Rigors and intermittent pyrexia continued. On April 25th appendicectomy was performed and a fibrosed appendix found. June 6th, still occasional rigors, dulness and crepitations at base of R. lung. Elastic fibres in sputum. Blood culture sterile. June 19th, three fits commencing with convulsive movements R. arm and leg. July 2nd, left hemiplegia, optic neuritis. Death July 8th.

Post-mortem.—White nodules in upper part of right lobe of the liver. Lungs riddled with small shotty nodules. Basal meningitis. Large abscess in right frontal and parietal lobes. Small abscess right occipital lobe. Large abscess left frontal lobe. Other organs healthy. Clinical laboratory report: Actinomycosis.

One case of kala azar. *Male, æt.* 43.—In India eleven years ago. South America eight years ago. Seventeen months ago headache, weakness, vomiting. Patches of pigmentation on skin, diarrhœa, malæna and hæmaturia. Several previous attacks. On admission spleen and liver were much enlarged. Urine normal. Blood count: Red blood corpuscles 4,365,625, hæmoglobin 100, white corpuscles 2740, F.G.O. 75·2 per cent., eosinophiles 7·4 per cent.

DISEASES OF RESPIRATORY SYSTEM.

32. Nasal.

(*a*) Deflected Nasal Septum.—Also enlarged turbinates, 6; tonsils, 8; adenoids, 11.

(*b*) Hypertrophy of Turbinates.—Also enlarged tonsils and adenoids, 8; also nasal poylpi, 1.

(*c*) Nasal Polypi.—Nasal, 10; naso-pharyngeal, 2.

(*d*) Various.—Chronic rhinitis, 3; tuberculous disease of nasal septum, 1; necrosis of vomer, 1; ? sarcoma of nasal cavity, 1.

33. Antrum and Sinus.

Malignant Disease of Antrum.—No operation, 1; colloid carcinoma, 1; squamous-celled carcinoma, 1.

34. Larynx.

(*a*) Laryngitis.—One case of pneumococcal perichondritis with abscess formation.

(*b*) Tuberculous Laryngitis.—See also under Phthisis.

(*c*) Syphilitic Laryngitis.—Three cases, all treated with salvarsan. Wassermann reaction positive in all cases. One case required tracheotomy.

(*d*) Papilloma.—One case discharged with permanent tracheotomy tube.

(*e*) Malignant Disease.—Inoperable, 1.

Case 1.—*Female, æt.* 38. Removal of larynx with part of pharynx, trachea, and œsophagus. Permanent tracheotomy and œsophageal fistula and gastrostomy. Readmitted with inoperable recurrence.

Case 2. *Fatal.—Female, æt.* 41. Previous gastrostomy. Operation, removal of larynx with part of trachea and œsophagus. Excision of malignant glands of neck with division of carotid artery and vagus. Death on day after operation. P.M.—Upper part of œsophagus infiltrated with growth.

35. Bronchitis.

Three readmissions. Emphysema well-marked in 6 cases. In one case, a male, æt. 38, there was extreme cyanosis with clubbing of the fingers, and a red count of 10,031,250.

Fatal cases.—Causes of death were convulsions (æt. 2 weeks), pulmonary collapse (æt. 3 months), and myocarditis (æt. 42).

37. Pneumonia.

111 cases of acute lobar pneumonia. One case chronic pneumonia.

Lobar pneumonia.—Twenty-two died out of 111, *i.e.* percentage mortality was 19·8; 8 cases had had pneumonia before. *Complications.*—Empyema, 5 (undiagnosed in one fatal case, where four ounces of pus were found post-mortem); meningeal symptoms, 3 (normal cerebro-spinal fluid in the two of them in which it was investigated); pyopericardium, 1; pericarditis, 1; acute nephritis, 1; hyperpyrexia, 1 (temperature 109° before death); meningitis with thrombosis of superior longitudinal sinus, 1; endocarditis, 1; pregnancy, 1; obstructed inguinal hernia, 1.

Lobes affected.—Right upper, 13; right lower, 25; whole right lung, 6; left upper, 1; left lower, 35; left upper and lower, 6; right and left lower, 10; whole right lung and left lower, 3; right upper and left lower, 1; not stated, 12.

Cases of interest.

C. L—, *female, æt.* 9. Five days' pains all over the body, one day abdominal pain; right iliac fossa rigid and tender; negative abdominal exploration; signs subsequently at right base; crisis on sixth day; recovery.

G. P—, *female, æt.* 4. Three days' constipation, abdominal pain and vomiting; distended abdomen; temperature 97·4°, respirations 60; diagnosed as intestinal obstruction, but none found on operation; death shortly after operation; P.M. —Central pneumonia, right upper lobe.

F. B—, *male, æt.* 38, had left-sided pneumonia 4 years ago. Admitted now on third day of pneumonia. Left upper and lower lobes affected. Temperature normal on the sixth day, but began to rise again on the seventh day. Large pyopericardium drained a month after admission (resection of costal cartilage). Copious purulent expectoration day after operation; pure culture of pneumococcus at first, but *Staphylococcus aureus* appeared later; mixed vaccine treatment; two subsequent operations for resection of carious rib. Discharged cured 9 months after admission.

T. C—, *male, æt.* 30, admitted on 2nd day; both lower lobes involved; pericardial friction heard on 6th day; slow lysis to 13th day, followed by irregular pyrexia for a month with persistent consolidation of left lower lobe; aspiration negative; von Pirquet negative; a stock pneumococcal vaccine had no effect but he improved under treatment with autogenous *Micrococcus catarrhalis* vaccine.

Chronic Pneumonia; Bronchiectasis.—T. O—, *male, æt.* 42. Cough 1 year; fœtid expectoration 3 months. Signs of bronchiectasis both lower lobes. Clubbing. Died in coma 12 days after admission. P.M.—Diffuse uniform fibrosis of right lung with collapse of lower lobe and bronchiectasis; the left lung was "a typical indurated lung" but was not bronchiectatic. There was no evidence of tuberculosis.

38. Bronchiectasis.

The fatal case was a *man, æt.* 28; P.M.—There was extreme tubular bronchiectasis of the left lower lobe, with a gangrenous cavity; there was a pyæmic infarct in the left kidney.

39. Chronic Pulmonary Tuberculosis.

Complications.—Hæmoptysis, 5; tuberculous ulceration of mouth, 1, of larynx 1, and of pharynx, larynx and intestines, 1; pericarditis 1; femoral thrombosis, 2; empyema, 2; pleural effusion, 1; perichondritis, 1; splenomegaly, 1.

40. Pleurisy.

Pleural effusion diagnosed in 40 of the 53 cases; the fluid was removed by aspiration in 35 cases; small lymphocytes were abundant in 33 samples.

41. Empyema.

Of the 51 cases, 6 were readmissions for sinus following empyema. Mortality for the remaining 45 cases was 8, or 16·6 per cent. Treatment was by intercostal drainage in 4 and by rib-resection and drainage in 39 cases. Estlander's operation was performed in 2 cases.

Ætiology.—After pneumonia, 18; after measles, 4; after operation for hernia 1, for mammary abscess 1, for dilatation and curetting 1, for mastoiditis 1.

Bacteriology.—Pneumococcus, 17; streptococcus, 5; Staphylococcus aureus, 2; Staphylococcus aureus and pneumococcus, 1; Staphylococcus aureus and a bacillus, 1; sterile, 1.

Complications.—Pneumothorax, 1; Meningitis, 1; tuberculous peritonitis, 1; septic peritonitis, 2; portal pyæmia, 1.

Pericarditis, 1; endocarditis, 1.

Subphrenic abscess, 1; pyo-pericardium, 1.

There was one instance of "empyema necessitatis"—in a girl æt. 6. In one case only was the empyema bilateral; a man, æt. 32, was operated on for right inguinal hernia on July 7th, a right-sided empyema was drained on July 27th, and a left-sided one on August 1st. Recovery.

Other cases of interest. J. W. O—, *male, æt.* 21.

Pneumonia 3 months ago; ill ever since; negative aspiration twice before admission. Complains now of purulent expectoration and pain in right leg.

On examination, wasted right thigh and indefinite mass in right loin; signs of right pleural effusion. Empyema and large psoas abscess treated surgically with success. Pneumococcus and *Staphylococcus aureus* in pus.

T. C—, *male, æt.* 20, was aspirated before admission for empyema following pneumonia. On admission, signs of right pyo-pneumothorax; confirmed by operation. Recovery.

W. T—, *male, æt.* 46, admitted on fourth day of a left-sided pneumonia. Pericarditis set in soon after admission and he died on the 17th day. P.M.—Three small encysted empyemata on left side; pericarditis and endocarditis.

W. R—, *male, æt.* 26, complained of 5 weeks' increasing right lumbar pain. Physical signs and radiography suggested right subphrenic abscess, which was found and drained; 12 days later a right-sided empyema was drained. Death a month later. P. M.—Abscess below root of right lung which communicated with the subphrenic abscess; septic foci in kidneys.

42. Pneumothorax.

A. E. M—, *male, æt.* 8, ill since measles 6 months ago. Signs of large left pleural effusion, but at operation only ½ pint clear fluid, with complete collapse of whole lung. Discharged at parents' request.

A. M—, *male, æt.* 21, was in this hospital in 1910 for pneumothorax. Readmitted for hydrothorax which was aspirated on three occasions.

G. H—, *medical student, æt.* 23, had pleurisy 6 months ago. Onset of left pneumothorax while playing tennis; very little distress. X-rays demonstrated complete pneumothorax. Treated by absolute rest in bed with rapid and complete recovery. No evidence of pneumothorax on discharge.

G. T—, *male, æt.* 20; very acute symptoms; death within 24 hours of onset. P.M.—Extensive chronic pulmonary tuberculosis with numerous cavities, one of which had ruptured into left pleura.

43. Growth of Lung or Mediastinum.

Diagnosis confirmed by autopsy in 10 of the 11 fatal cases. Spindle-celled sarcoma, 4; lymphosarcoma, 2; endothelioma, 1; spheroidal-celled sarcoma, 1; Round-celled sarcoma, 1; myxo-fibro-sarcoma, 1.

Distribution of growth.—Mediastinal glands, 5; lung, 2; lung, liver, and ribs, 1; lung and liver, 1; mediastinal glands and lungs, 1; mediastinal glands and diffuse abdominal growth, 1.

Pleural exudate was found in 3 cases and pericarditis in 2.

Cases of interest.—W. H. S—, *male, æt.* 41. Cough 2 years; increasing dyspnœa and husky voice 1 month; dysphagia 1 week. There was a harsh basal systolic murmur and a well-marked tracheal tug, but no other signs of aneurysm. There were signs of massive collapse of the left lower lobe. P.M.—Mediastinal growth displacing heart and lung to left, and compressing œsophagus. Aortic arch and pulmonary artery completely encased in growth. Bosses of growth in lumen of superior vena cava. The growth was a round-celled sarcoma.

W. C—, *male, æt.* 63, gave a history of chronic bronchitis of thirty years' duration. The signs on admission were only those of emphysema and capillary bronchitis. P.M.—Pleuræ obliterated by dense adhesions, small lympho-sarcoma at root of left lung invading the lower bronchus.

C. W—, *male, æt.* 47. Complained of hoarseness during the past eight months and of a fortnight's loss of power in the right arm. The right arm was extremely œdematous and there was a considerable loss of power, with anæsthesia over the neck and shoulder. The pupils were unequal and there was right recurrent laryngeal paralysis. There was unilateral sweating of the face. Examination of the chest revealed signs of bronchitis only. P.M.—Large mediastinal growth invading both lungs; prevertebral glands right up to the base of the skull infiltrated with growth. Microscopically the lung is reported as "advanced tuberculosis: small nodule of endothelioma present." The gland examined was infiltrated with endothelioma.

44. Various Respiratory Diseases.

(*b*) Pulmonary Abscess.—One case died of tetanus (*q. v.*) The other two cases were probably consequent on pneumonia; one was treated surgically and died. The other case was successfully treated with an autogenous streptococcal vaccine prepared from the sputum, which was copious and purulent.

CIRCULATORY SYSTEM.

45. Aneurysm.

(*a*) Thoracic (14 cases).—Six cases gave a history of syphilis. The Wassermann reaction was positive in four cases, negative in one. The diagnosis of aneurysm was confirmed by X rays in eight cases.

Case treated surgically.—R. H—, *male, æt.* 38, had syphilis seventeen years ago. Two years ago an innominate aneurysm appeared; this was successfully treated by ligation of the carotid and subclavian arteries, but the pulsating swelling reappeared one year ago. State—large swelling on right side of neck pushing clavicle forwards. X-rays suggest innominate and aortic aneurysm. The sac was "wired" on three occasions, eighteen feet of wire being introduced on each occasion; the sac was also electrolysed. After the last operation the skin

over the sac became infected and eventually profuse hæmorrhage occurred; this was stopped by means of a purse-string suture and by suture of fascia over the sac, but signs of œsophageal and tracheal obstruction supervened and the patient died. P.M.—Saccular aneurysm of ascending arch and fusiform aneurysm of innominate artery. Thirteen and a half ounces of clot in aortic aneurysm. There was a loop of wire in the ascending aorta; the clot round this formed a sausage shaped tumour four inches long which almost occluded the lumen of the vessel.

(*b*) Aneurysm, Various.—All recovered.

Variety.	*Treatment.*
Popliteal	Ligation of femoral artery.
Facial	Excision.
Traumatic palmar . . .	Ligation of ulnar artery.
Right subclavian . . .	Ligation of innominate artery.
Cirsoid aneurysm (thumb) . .	Excision.

46. Aortic Disease.

Aortic stenosis in 1 case; regurgitation only in the remaining 22. Past history of rheumatism in 3; of lead poisoning in 1. Wassermann reaction positive in 4, negative in 2. Anginal attacks in 2 cases, paroxysmal tachycardia in 1. Bilateral empyemata in one case (fatal).

47. Arterio-sclerosis.

In the 2 fatal cases there was a considerable degree of chronic interstitial nephritis and cardiac hypertrophy.

48. Malignant Endocarditis.

Eleven fatal cases; the two patients discharged left the hospital at their own request—both of them with active disease. Six cases gave a definite history of acute rheumatism, and in every fatal case there was evidence of old as well as of recent endocarditis. Blood-cultures were done in 7 cases; in 2 a streptococcus was grown, in 1 a diplococcus, while 4 were sterile. Two cases were treated with an autogenous vaccine (4 doses only in each case); one of these was fatal; in the other the vaccine appeared to have a beneficial effect on the temperature chart, but the treatment was not persisted in and the patient was discharged; 3 cases were treated with a polyvalent streptococcal serum and 2 with nuclein; all of these were fatal. In one a "fixation abscess" was made by a turpentine injection; the pus was sterile and no improvement took place.

Complications.—Cerebral embolism, 4; popliteal embolism, 1; pneumonia, 2; cerebral hæmorrhage, 1; hæmatemesis, 1; optic neuritis, 1. Well-marked tricuspid stenosis was found in 2 cases.

Cases of interest.—N. R. E—, female, æt. 20. Three previous attacks of acute rheumatism; now complains of rheumatism of 3 months' duration. Two months after admission double optic neuritis appeared, with retinal hæmorrhages. There was marked contraction of both visual fields. A week later there was a sudden left hemiplegia, ending fatally. P.M.—Old mitral disease; tricuspid stenosis; exuberant vegetations on mitral, aortic and tricuspid valves. Infarcts in spleen and kidneys. Large embolus at end of right internal carotid.

Softening in right occipital pole. P.M.—Cultures from spleen gave *Staphylococcus aureus* and *B. coli.*

A. S—, *female, æt.* 13, had been in this hospital 5 years ago for pericarditis and mitral disease. Two months after admission she suddenly became comatose and died; there was no evidence of hemiplegia. P.M.—Old and recent endocarditis on mitral and aortic valves. Old infarcts in kidneys and spleen. Large hæmorrhage in left internal capsule; also subarachnoid hæmorrhage over left frontal lobe.

A. L—, *male, æt.* 69, had rheumatism 20 years ago. For 3 weeks he had been ill with fever and a stiff neck. Sudden onset of right hemiplegia merging into coma the day before admission. P.M.—No cerebral lesion found. Infarcts in left kidney and spleen. Large vegetations on thickened mitral valve.

49. Gangrene.

Tabetic, 1; senile, 7; diabetic, 7 (complicated by acromegaly, 1).

No operation in 2 cases. In 1 case arterio-venous anastomosis was performed between the superficial femoral artery and vein for dry gangrene of the toes. Local pulsation at the site of anastomosis occurred immediately, but could not be felt in the veins of the foot. The foot remained warm, and later a flap method of amputation in the lower third of the leg was performed. The flaps did not slough.

Fatal cases.—Toxæmia and septicæmia, 4; shock, 1; coma, 4; ? pulmonary embolism, 1.

50. Mitral Disease.

Regurgitation, 32; stenosis, 13; double mitral disease, 17. Total 62, of whom 7 died. Past history of rheumatism in 23, of chorea in 7.

Complications.—Ascites, 6; cerebral embolism, 3; rheumatic nodules, 1; primary syphilis, 1; hæmoptysis, 3; epilepsy, 1; pericarditis, 1; adherent pericardium, 1; hydrothorax, 1; chronic nephritis 3; tricuspid stenosis, 1.

51. Mitral and Aortic Disease.

Aortic stenosis in one case only.

Past history of rheumatism in 10, of chorea, 1. Wassermann reaction positive in 2. *Complications.*—Pulmonary infarction, 3; cerebral embolism, 3; ascites, 1; miliary pulmonary tuberculosis, 1; hydrothorax, 1; adherent pericardium, 1; tricuspid stenosis, 2; pregnancy, 1; endocarditis, 4; rheumatic nodules, 1.

One case, a *man, æt.* 38, was in this hospital 5 years ago for an abdominal tumour. The abdomen was explored, and he was told that he had cancer of the liver (in the notes the liver is described as having been much enlarged and infiltrated with growth). He had cardiac disease at this time. He now complained of a return of the abdominal tumour and of symptoms of cardiac failure. The abdominal tumour was now obviously a nutmeg liver. His Wassermann reaction was positive, so it is possible that the tumour on previous admission was a gumma; but P.M. the liver is described as being of the nutmeg type and there is no mention of gummatous scars. There was gross mitral and aortic regurgitation and chronic interstitial nephritis.

52. Myocarditis.

History of rheumatism in 2; of syphilis in 3; of alcohol in 3; one case apparently was consequent on follicular tonsillitis.

Complications.—Hydrothorax, 4; ascites, 2; hæmoptysis, 1; popliteal embolism, 1. P.M. findings in the 5 fatal cases were: fibrous myocarditis, 2; brown atrophy, 1; brown atrophy and fibrous myocarditis, 1; gumma below aortic cusps, 1.

53. Pericarditis.

Rheumatism in 10.

Complications.—Mitral regurgitation, 5; aortic regurgitation, 2; pleurisy, 1; diaphragmatic arrest with massive collapse of both lower lobes, 1. The one fatal case was probably of syphilitic origin. P.M. there was aortic incompetence, gross atheroma of the aorta and myocarditis.

Four Cases of Acute Emphysematous Gangrene.

For full report of cases see under individual headings. *Bacillus aërogenes capsulatus* was cultured in all cases.

Sex.	Age.	History.	Onset of gangrene.	Treatment.	Result.		Remarks.
					R.	D.	
M.	34	Crushed wound of hand in street accident	Second day	Amputation through upper arm	—	1	P.M.—"Foaming liver" present.
M.	22	Compound fracture of femur in street accident. Treated by lavage of wound and wiring of fracture	Second day	Amputation at hip-joint	1	—	Amputation suppurated.
M.	50	Compound fracture of tibia and fibula with great laceration in motor street accident. Immediate amputation at seat of election	Fourth day	Amputation through upper third of thigh	—	1	P.M.—Fatty liver.
M.	48	Compound fracture of fibula and both malleoli in street accident. Wound irrigated and sutured	Third day	Amputation through thigh	—	1	P.M. — Emphysema all over body, gas present in liver, spleen and kidneys.

54. Varicocele.

Service candidates, 11. Both sides, 2; rest on left side. Also varicose veins 2; phimosis, 1; developed post-operative hydrocele, 1.

55. Varicose Veins.

Both legs, 62; recurrent, 9; thrombosed, 5; ruptured, 1; readmissions, 2. Also varicocele, 4; varicose ulcer, 2; hydrocele, 1.

56. Thrombosis.

Femoral, 4; superior caval, 1; cavernous sinus, 1.

J. G—, an obese *male. æt.* 47, had had syphilis and malaria; was in this hospital 12 years ago complaining of symptoms of superior caval obstruction. There were varicose veins over the upper part of the chest then, and the diagnosis was "mediastinal tumour." He now complains of dyspnœa and congestion of the head. There is solid œdema of the chest and arms, and great cyanosis and congestion of the face, also large varicose veins over the chest with blood flowing from above downwards.

No physical signs of mediastinal tumour or of aneurysm. X rays negative. Considerable improvement under anti-obesity treatment.

B. D—, *female, æt.* 40. Admitted with a 5-days history of severe pain in the neck and right arm; the onset was sudden during convalescence from an attack of influenza. On examination there was rigidity and tenderness over the back of the neck and a temperature of 104° F., but nothing else abnormal could be discovered.

An incision down to the laminæ of the cervical vertebræ revealed nothing abnormal. There was proptosis of the right eye before death 3 days after admission. P.M.—Puriform clot was found in the cavernous sinuses, most on the right side. A careful search failed to discover any septic focus elsewhere.

57. Congenital Heart Disease.

Three cases, all fatal.

Post-mortem findings.—J. D—, *male, æt. 7 months.* At the exact region of the undefended space there was an inter-ventricular communication ¼ inch in diameter.

R. B—, *female, æt. 2 weeks.* Patent foramen ovale, also ½-inch opening through undefended space, considerable hypertrophy of both ventricles, extensive pulmonary collapse.

V. E. S—, *male, æt.* 11 *weeks.* Patent ductus arteriosus and hypertrophy of both ventricles; confluent broncho-pneumonia.

58. Various Circulatory Diseases.

(*e*) Angina Pectoris.—No physical signs of cardiac disease in either case.

(*f*) Raynaud's Disease.—J. H—, *male, æt.* 59, denied syphilis; no previous history suggestive of Raynaud's disease. Sudden onset of dry gangrene of ends of all fingers two days before admission. Patch of consolidation at base of right lower lobe (which cleared up). Wassermann reaction positive.

DISEASES OF SKIN AND SUBCUTANEOUS TISSUES.

59. Cysts.

(*a*) Developmental.—Cystic hygroma of neck, 1; sequestration dermoids, 2.

60. Tumours.

Of interest.—5 cases of fascial sarcoma.

Case 1.—*Male, æt.* 68. Fibro-sarcoma of thigh. History of swelling in thigh

for ten months. A tumour the size of a cricket-ball was present in connection with the fascia over the vastus externus muscle. It was becoming attached to skin. The tumour was excised with the skin over it. Plastic skin-flaps were formed and raw areas covered by grafting at a second operation. Recovery Microscopical report, fibro-sarcoma.

Case 2.—*Male, æt.* 31. Recurrent fibro-sarcoma of cheek. A tumour on the right side of the cheek had been removed twice during six years. Slow recurrence. A tumour was present in connection with the buccinator fascia. Local excision was performed. Recovery. Microscopical report as above.

Case 3.—*Female, æt.* 21. Spindle sarcoma of groin. Previous operation two years before for a vulval tumour of unknown nature. History of eighteen months' swelling in the left groin. On admission this tumour was as large as a cocoanut, and attached to skin and deeper structures. At operation the growth was found to be roughly encapsuled, and attached to the deep fascia. Local excision was performed and the wound afterwards treated with X rays. Recovery. Microscopical report, spindle-celled sarcoma.

Case 4.—*Female, æt.* 22. Spindle sarcoma of thigh. Three months' history of swelling in the thigh. A roughly encapsuled tumour in connection with the fascia over the vastus externus muscle was removed by local excision. A course of treatment with Coley's fluid followed. The wound, which suppurated, was healed on discharge. Clinical report, spindle-celled sarcoma.

Case 5.—*Female, æt.* 16. Spindle sarcoma of heel. History of swelling over the right heel for a year. A tumour about the size of a florin and somewhat flattened and attached to the skin was present over the os calcis. At operation the growth was seen to arise from the deep tissues of the heel, having no connection with the periosteum of the os calcis, a portion of which was removed for microscopy. Local excision. Microscopical report, no growth in periosteum, tumour as above.

61. Ulcers.

Syphilitic ulcers treated with salvarsan intra-venously, 2; epitheliomatous change in a chronic ulcer, 1.

Cases of interest.

(1) *Rodent ulcer occurring in scar. Male, æt.* 66. Partial laryngectomy for epithelioma of vocal cord in 1908. Admitted with small ulcer with slightly raised but not heaped-up edges in the mid-line scar. Local excision. Microscopical appearance of rodent ulcer.

(2) *Multiple rodent ulcers.—Male, æt.* 50. Rodent ulcer of nose excised twenty-five years ago. This recurred one year later and was cured by X-ray treatment. Two years before admission recurrence of ulcers took place, and on admission small rodent ulcers were present on the upper eyelid, cheek, upper lip and nasal septum and over the ramus of the lower jaw. All the ulcers were excised.

62. Various Skin Diseases.

Eczema, 5; lupus, 3; tuberculous dermatitis, 1; psoriasis, 1; onychia, 2; arsenical pigmentation, 1.

DIGESTIVE SYSTEM.

63. Mouth and Pharynx.

Carcinoma.—Floor of mouth, 14; cheek, 2; fauces, 1; uvula, 1. Inoperable, 9; developed cancrum oris, 1.

Various.—Intra-venous injection of salvarsan for (1) syphilitic stenosis of pharynx, (2) ulcer of soft palate. Malposition of tooth, 1; inflammatory swelling of gum, 4; papilloma of uvula, 1; tumour of hard palate (? nature), 1; sarcoma of pharynx (inoperable), 1.

64. Tonsils and Adenoids.

Acute tonsillitis, 5; malignant ulcer of tonsil, 1. Remainder chronic enlargement.

65. Lips and Tongue.

(*a*) Glossitis.—Acute parenchymatous glossitis, 1; injection of salvarsan for chronic superficial glossitis, 2; leucoplakia, 1.

(*b*) Simple Tumours and Cysts.—Nævus of lip and tongue, 1; mucous cyst of lip, 1.

(*c*) Carcinoma.—Inoperable, 6; recurrent, 2; refused operation, 1.

Fatal cases.

Male, æt. 59. Carcinoma of tongue involving floor of mouth and fauces. Extra-buccal excision of tongue and right tonsil. Death 5 days later from broncho-pneumonia.

Male, æt. 49. Carcinoma of right half of tongue involving fauces, glands enlarged. Kocher's excision of tongue. Death from shock a few hours after operation.

(*d*) Macroglossia.—One case, refused treatment.

66. Œsophagus.

There were 36 cases of carcinoma of œsophagus and of these 11 died before discharge. Of the fatal cases 5 had gastrostomy performed.

Of the fatal cases 2 were complicated with advanced pulmonary tuberculosis. Two had septic pneumonia. One gangrene of right lower lobe. One abscess right lung. One empyema. One right pleural effusion. Of the 25 cases that were discharged 11 had gastrostomy performed. Three cases were diagnosed as syphilitic, and improved with potassium iodide and bougies. Three were spasm of the œsophagus. One was the result of past hydrochloric acid poisoning.

67. Stomach.

(*a*) Gastric Ulcer.—Eighty-three cases, of which 5 were fatal, *i. e.* mortality 6 per cent. Of the fatal cases, two were in women who died with severe hæmatemesis. One, a *man, æt.* 55, who died after gastro-jejunostomy. P.M.—A large blood-clot was found in the stomach, and a large chronic ulcer found in the posterior wall of the stomach, adherent to the pancreas. Two were cases of perforated gastric ulcer, and one of these died eight days after the operation from broncho-pneumonia.

There were 13 cases of perforated gastric ulcer with two fatalities, *i. e.* mortality 17·5 per cent. One of the fatal cases gave a history of 9 hours, the other

of 12 hours. Of the 11 non-fatal cases the history was of 6 hours or less in 6 cases, 17 hours in 1, 24 hours in 2, and probably 2 days in another. Immediate operation was performed in all cases.

The situation of the ulcer in the cases of perforation was—9 out of 12 were situated in the anterior surface of the stomach; 4 of these were near the lesser curvature, midway between the cardiac and pylorie openings, 2 at the cardiac end, and 3 at the pylorie end of the stomach. Two were situated on the lesser curvature. One was on the posterior surface of the lesser curvature near the pylorus.

Of the 3 fatal cases in which perforation had not occurred, the ulcer was on the posterior wall of the cardiac end near the greater curvature in 2 cases. There was no P.M. in the third.

Of the 62 non-fatal cases in which perforation had not occurred, posterior gastro-enterostomy was performed in 6 cases, and anterior gastro-enterostomy in 1. Anterior gastro-enterostomy was performed because the posterior wall of the stomach was infiltrated and bound down. In the 6 cases in which posterior gastro-enterostomy was performed thickening of the pyloric end of the stomach was found in 5. One operation was performed for profuse hæmorrhage.

Complications.—Hæmatemesis was noted in 34 cases; melæna in 22 cases. Pain was noted in all cases. Three cases also had pulmonary tuberculosis, 2 mucous colitis. One case followed confinement. In 4 cases a test-meal was given, and in each case free hydrochloric, but no lactic acid was found. In the non-perforated cases, treatment consisted of gastro-enterostomy in 8, saline in 23, normal horse-serum in 2, and light diet with bismuth in the rest.

(*b*) Carcinoma.—Thirty-three cases, of which 10 died and 23 were discharged.

The first symptom complained of was—pain in 25, *i. e.* 75·75 per cent.; vomiting in 5, *i.e.* 15·15 per cent.; wasting in 2, *i. e.* 6 per cent.; tumour 1, *i. e.* 3 per cent.; a mass was felt in the abdomen in 19 cases, *i. e.* 57·5 per cent.; hæmatemesis in 3 cases and slight streaks of blood with vomit in 2; ascites was noted in 3 cases.

A test-meal was given in 15 cases, and of these free hydrochloric acid and lactic acid were both absent in 3, free hydrochloric absent but lactic present in 7, free hydrochloric present but lactic absent in 5.

One case was complicated with subphrenic abscess. Gastro-enterostomy was performed in 13 cases, and of these 2 died before discharge.

Male, æt. 47.—Epigastric pain half an hour after food for three months. No vomiting. Coarse pleural rub in left axilla, with dulness and distant breath-sounds. Irregular pyrexia. Transpleural drainage of subphrenic abscess. Large mass of glands appeared above the right clavicle. P.M.—Diffuse carcinoma of stomach. Involvement of cervical and mediastinal glands.

Male, æt. 52. Eight months' dyspepsia and wasting. No mass felt. Free hydrochloric acid present, no lactic acid. Laparotomy was performed, and a large part of the anterior wall infiltrated with growth was removed. Posterior wall of stomach was found also to be involved and was fixed. The growth was found to be carcinomatous microscopically. Infective parotitis supervened and the patient died.

(*c*) Dilatation.—Thirty cases, of which 4 were fatal.

Of the 26 non-fatal cases, 10 were due to atonic dilatation, and 16 to pyloric

obstruction. Seven of the 10 were treated without operation and 3 with posterior gastro-enterostomy. Of the 16 cases due to pyloric obstruction all were treated with gastro-enterostomy.

Female, æt. 33. Nine years' indigestion. Stomach 3 inches below the umbilicus, vomiting absent, but a feeling of nausea after meals. Gastro-jejunostomy performed, December, 1910. Readmitted, June, 1911. Pain after food increased, no vomiting. Stomach much dilated. Bismuth stayed in stomach for two hours. Operation was performed, and it was found that the old gastro-jejunostomy wound admitted two fingers. This opening was enlarged. Patient improved but still had some pain.

Male, æt. 58. Five years' umbilical pain after food. Three or four years' melæna. Losing weight one year. Anæmia marked. Free hydrochloric acid and no lactic acid in stomach. Gastro-enterostomy performed, and a large non-malignant mass found on anterior wall of stomach near the pylorus.

Of the 4 fatal cases, one died with gangrenous pneumonia after gastro-enterostomy, one with chronic pulmonary tuberculosis, and death occurred in a man after gastro-enterostomy and passage of sounds for urethral stricture, and 1 in a man who had acute dilatation of stomach complicating cerebral thrombosis.

Male, æt. 24. One day loss of power, legs. Left hemiplegia. On the 26th day from the onset patient began to vomit, and vomited dark green fluid. This was accompanied with abdominal pain. He died four days later. P.M.—Thrombosis right middle cerebral artery. Gumma of liver. Acute dilatation of stomach.

(*d*) Various.—Two cases of hour-glass stomach.

(1) *Female, æt.* 34. Epigastric pain 1 hour after food, 7 years. Hæmatemesis 4 years ago, 4 months and 1 month ago. *Nil* felt in abdomen. Posterior gastro-jejunostomy was performed, and the anastomosis was made to the cardiac chamber. There was a large cardiac and a small pyloric chamber found. Patient made a good recovery.

(2) *Female, æt.* 45. A patient with hour-glass stomach had gastro-gastrostomy performed in June, 1910. In January, 1911, she returned with a 10 weeks' history of epigastric pain and tenderness. On exploration the stomach was found to be leaking and an inflammatory mass made the stomach adherent to the anterior abdominal wall. The stomach was sutured, and patient made a rapid recovery.

One fatal case of acute gastritis is of interest:

Male, æt. 23. Four years ago he had gastric ulcer. On the present occasion he complained of pain for 1 month, and had severe hæmatemesis. Temperature was 102·4 F. on admission and remained remittent. Patient died after having been 14 days in hospital. Treatment with saline, normal horse-serum and morphia. P.M.—No induration of stomach. No ulcer, but a small stellate scar on posterior wall. On the posterior wall of the stomach was an area of about 3 square inches acutely congested, with ecchymoses, and swollen, pliable mucous membrane.

There was one case of congenital hypertrophic stenosis of pylorus:

Male child, æt. 1 *month.* No lump could be felt and no peristalsis was seen, but the child had continued vomiting and wasting. Gastro-jejunostomy (posterior) was performed; the pylorus was found to be hard and large, and the stomach-wall thickened. The child died after the operation.

68. Duodenum.

There were 33 cases of duodenal ulcer, and of these 1 only was in a female—a percentage of 97 per cent. males. (In the year's gastric ulcer cases, the percentage of males was 24·3.) Of these 33 cases, 14 were cases of perforated duodenal ulcer, all of which had operation, but 7 of them died —a mortality of 50 per cent. Except for these 7 fatal cases there were no fatalities.

Apart from the perforated cases 3 only had operation, and in each case posterior gastro-enterostomy was performed, and recovery was uninterrupted.

Of the 19 cases in which perforation had not occurred, hæmatemesis was noted in 7 cases, melæna with no hæmatemesis in 2. In 3 cases only a test-meal was given and free hydrochloric acid but no lactic was found in each case.

Cases of interest.

(1) *Male, æt.* 50. Acute onset of pain in chest and dyspnœa one week ago. Shifting dulness and coin sound obtained in right side of chest; a rib was resected and much offensive pus evacuated. P.M.—Abscess-cavity between diaphragm and liver. Abscess middle lobe of right lung. Perforated duodenal ulcer.

(2) *Male, æt.* 17. Acute pain 3½ hours. Some pain after meals 6 months. Operation was performed at once, and the ulcer sutured, but patient died from general peritonitis. P.M.—Two recent ulcers found, one posteriorly adherent to the pancreas, and one anteriorly which had perforated. The case is of interest owing to the age of the patient.

(3) *Female, æt.* 40. Many years' indigestion. Acute onset of pain 24 hours. Operation; suture of perforated ulcer in anterior wall of duodenum. Dry sponging. Patient improved, but symptoms of peritonitis set in on 6th day and she died. P.M.—Hour-glass constriction of stomach with recent shallow ulcer on lesser curvature. The perforated ulcer in the anterior wall of duodeum had been sutured satisfactorily, and another ulcer in posterior wall of duodenum was found.

69. Hæmatemesis.

One case of recurring hæmatemesis in which no diagnosis as to cause was made.

70. Intestinal, Various.

(1) Tuberculous Ulcer of Intestine.—Old-standing pulmonary tuberculosis. Two years' diarrhœa and abdominal pain. Right rectus rigid over right iliac fossa Operation was performed and the ileo-cæcal valve was found destroyed, canal being size of lead pencil. Large cicatrised ulcer of cæcum and base of appendix. Extensive ulceration extending up ascending colon. Appendix thick, but not ulcerated. The cæcum was excised and lateral ileo-transverse colostomy performed. The patient, a man of 28, was discharged 1 month after the operation.

(2) Carcinoma Small Intestine.—*Female, æt.* 51.—Four months' malaise. Diarrhœa, alternating with constipation. No blood passed *per rectum*. Very marked anæmia. Hard tender mass felt in the left iliac fossa. P.M.—Carcinoma of small intestine, one foot below duodeno-jejunal flexure; coils adherent together with fistula between.

There were 7 cases of carcinoma of the pelvic colon, 2 of the transverse colon, 3 of the ascending colon, and 3 of the cæcum.

One case was complicated by carcinoma of the breast.

71. Appendicitis.

All cases in this group subsided under medical treatment, or showed no peritonitis at operation.

Treated medically, 30. Interval operation of appendicectomy, 203. Appendicectomy during attack, 29: Onset under 12 hours, 5; under 24 hours, 3; under 48 hours, 9; under 72 hours, 5; over 72 hours, 7.

The history given as regards previous attacks showed the following proportion: First attack, 96; second attack, 41; third attack, 32; over three attacks, 45; indefinite, 48. Previous drainage of appendix abscess, 15.

Complications. — Movable kidney, 2; salpingitis, 2; cystic ovary, 2; cholelithiasis, 1; undescended testis, 1; fibroma of abdominal wall, 1.

Post-operative complications.—Pleural effusion, 1; massive pulmonary collapse, 1; intestinal obstruction due to adhesions, 1; thrombosis of left leg, 1.

Fatal cases.—(1) *Female, æt.* 14. Portal pyæmia. Five days' abdominal pain and vomiting, mass in right iliac fossa, and rising pulse-rate. Operation on day of admission, mass of adhesions found and thrombosis of mesenteric veins. The appendix was removed, and a thrombosed vein ligatured and divided. Rigors followed operation, and recurred daily until death 23 days later. No jaundice. P.M.—Gangrenous tissue about cæcum, thrombosis of main portal trunk, liver riddled with abscesses.

(2) *Female, æt.* 30. Peritonitis. Several previous attacks, one week abdominal pain. Operation showed acute catarrhal appendicitis, no peritonitis, and right cystic ovary. The appendix and ovary were removed. On the following day symptoms of peritonitis came on, and two days after the first operation the abdomen was reopened and general peritonitis found. Culture gave pneumococcus and *Staphylococcus albus.* P.M.—General suppurative peritonitis.

(3) *Male, æt.* 30. Peritonitis. Quiescent appendicitis, strictured adherent appendix removed. Symptoms of peritonitis developed on day after operation; the abdomen was reopened and drained. Culture gave *Streptococcus pyogenes* and *Staphylococcus albus.* No P.M.

71 (*a*). Appendicitis with Local Peritonitis.

In this group all cases were operated upon during the acute attack, and showed localised peritonitis. The history given as regards previous attacks was as follows: First attack, 63; second attack, 8; third attack, 2; over three attacks, 1; indefinite, 5.

Operation Interval from Onset of Attack.

Operation interval.		Drainage required	Recovered.	Died.
Under 12 hours	9	5	9	—
Under 24 hours	14	10	13	1
Under 48 hours	22	19	22	—
Under 72 hours	19	18	17	2
Over 72 hours	15	15	14	1

Condition of appendix found at operation.—Acute catarrhal inflammation, 8; gangrenous mucous membrane, 31; perforated appendix, 35; not stated, 5. Developed residual abscess after operation, 3.

Fatal cases.

(1) *Male, æt.* 26, *barman.* Actinomycosis. Ten days' vague abdominal pain, 3 days' acute. Mass felt in right iliac fossa. Immediate operation. Free sero-purulent fluid found in peritoneum; appendix 6 inches in length, with the terminal 3 inches much thickened (not examined microscopically). Peritoneum drained after appendicectomy. Persistent fever of intermittent type followed, and several operations were performed, exploring the abdomen, subphrenic region and thorax. Later cultures from the resulting sinuses gave *Staphylococcus aureus* and actinomycosis. He was treated with potassium iodide, but gradually wasted, and died 8 months after admission. P.M.—All the viscera on the right side of abdomen matted together. Retro-peritoneal and muscular infiltration with actinomycosis, liver and left kidney showed multiple actinomycotic abscesses, lungs riddled with actinomycosis, and empyema present on left side.

(2) *Male, æt.* 8. First attack, operation interval 24 hours. Local peritonitis was found, and the appendix had gangrenous mucous membrane throughout. Appendicectomy without drainage performed. Post-operative vomiting occurred and was uncontrollable. Death on third day. P.M.—No peritonitis, right side of heart dilated.

(3) *Male, æt.* 33.—Pylephlebitis. Many previous attacks. Admitted with history of ten days' abdominal pain, acute one day. Operation revealed local suppurative appendicitis with acute catarrhal appendicitis. Appendicectomy and drainage. Intermittent fever after operation. Discharged sixteen days after operation, but readmitted in a month with a history and constant illness since discharge. Repeated rigors ensued, and the abdomen was explored and adhesions divided but no other cause for the symptoms discovered. Persistent pyrexia followed; no jaundice. P.M.—Multiple foci of suppuration throughout liver.

(4) *Female, æt.* 29.—Hepatic abscess. First attack, three days' pain, vomiting and pyrexia. On admission the temperature was 105° F.; a mass was felt in the loin, and some pyuria was present. Operation on the fourth day of illness. A high gangrenous appendix was found adherent to the under surface of the liver and front of right kidney. Local suppuration had occurred. Appendicectomy and drainage. Pyrexia persisted and dulness was noted over the right lower thorax. The right subphrenic region was explored and the upper surfare of the liver found to be soft and almost diffluent. Fever continued, no jaundice. Died in toxæmic condition. P.M.—Single abscess in upper part of right lobe of liver. *Nil* in pleura; collapse of lower lobe of right lung.

72. Appendix Abscess.

Readmitted later for appendicectomy, 33; also ventral hernia, 1; cystic ovary, 1.

One case occurred in an infant, *æt.* 13 months.

The abscess was opened across the peritoneum in 8 cases.

Incidence of Residual Abscess Formation.

Period since onset of disease of first operation.	Period from primary to secondary operation.	Situation of residual abscess.	Remarks.
12 days	3 days	Left abdomen	First abscess loculated.
10 days	11 days	Right abdomen	High primary abscess.
7 days	15 days	Left iliac fossa	—
2 days	14 days	Pelvis	—
8 days	14 days	Left iliac fossa	First abscess not localised.
12 days	28 days	Left iliac fossa	—
7 days	46 days	Left iliac fossa	First abscess retro-cæcal.
7 days	13 days	Right iliac fossa	—

Fatal cases.—3 males, 3 females. Death in all cases from peritonitis. In one case the abscess was not well localised; in the other 5 cases the abscess was localised, but was opened across the peritoneum in 4 cases.

73. Appendicitis with Spreading or General Peritonitis.

History given as regards number of attacks was as follows: First attack, 50 (fatal, 23); second attack, 4; third attack, 3; over three attacks, 2 (fatal, 1).

Operation Interval from Onset of Disease.

Operation interval.		Recovered.	Died.
Under 12 hours . .	2	2	—
Under 24 hours . .	1	1	—
Under 48 hours . .	14	12	2
Under 72 hours . .	13	8	5
Over 72 hours . .	29	12	17

Readmitted for abdominal pain due to adhesions, 2; readmitted with peritonitis after previous appendicectomy, 1. Condition followed abortion in one case.

Post-operative complications.—Residual abscess, 1; faecal fistula, 2; pleural effusion, 1.

Fatal cases.—13 males, 12 females.

Cause of death.—Peritonitis, 19; peritonitis and empyema, 2; broncho-pneumonia, 1; pulmonary tuberculosis, 1; no P.M., 4.

74. Colitis.

There were 7 cases of ulcerative colitis, and 2 of these were fatal.

Male, æt. 52. Eleven months before admission patient had an attack of abdominal pain and jaundice. He had a tingling sensation in his legs, and a feeling as if he walked on cotton-wool. This illness lasted 5 weeks. Two months

before admission he had a second attack of jaundice, and weakness of the legs. There was no mucus or blood in the stools. No diarrhœa except for the last 3 days of life. P.M.—The entire colon and cæcum was ulcerated. Some of the ulcers had nearly perforated, and many were confluent so that large ulcerated surfaces were seen. The other organs appeared healthy. No gall-stones were present.

Female, æt. 48. Well until 3 months before admission. Then she had a diarrhœa with blood in the stools. P.M.—Ulceration from hepatic flexure to anus. No ulcers in ascending colon.

Male, æt. 31. Losing weight for 3 months. Six weeks' gradual onset of diarrhœa with some blood. On admission not much pain or tenesmus. Stools quite unformed and contained much blood and a little mucus; 10–16 stools a day. Irregular pyrexia. Wasting marked. *Bacillus coli* grown from rectal scraping. Anti-dysenteric serum given, but without benefit.

Cæcostomy was performed and the colon was washed through with saline containing ʒij of adrenalin to the pint. Later silver nitrate was used to wash through the colon. Patient improved much, but had a severe relapse after 3 months with severe diarrhœa and blood. He improved again and was discharged, but the stools remained unformed.

There were 4 cases of mucous colitis, 3 in women between 30 and 40, one in a man of 23. One case was complicated with hour-glass stomach, and had had a previous operation for gastric ulcer.

75. Intestinal Obstruction.

(*a*) Simple.

(2) Obstruction by Bands and Adhesions.—No history of previous abdominal disease, 4; following appendicitis, 2; pyosalpinx, 1; ? tuberculous peritonitis, 1; ? developmental band from uterus to pelvic wall, 1; previous laparotomy for ruptured liver, 1.

Fatal cases.—Fæcal extravasation, 2; shock, 1; general peritonitis, 1.

(3) Internal Herniæ.

Case 1.—*Female, æt.* 75. No previous history of abdominal disease; six months' pain in back and constipation with loss of weight. Admitted with chronic intestinal obstruction. At operation a mass of adhesions was found binding the cæcum to the transverse colon, and under the sac so formed a loop of small intestine was adherent and obstructed. Enterolysis performed. Recovery.

Case 2.—*Male, æt.* 53. Four days' intestinal obstruction. General abdominal distension, no vomiting, and no visible peristalsis. Exploratory laparotomy showed that the mesentery of the small intestine was unusually long, and that a loop of ileum was obstructed by passing under the mesentery of the gut above. This was reduced. Recovery.

Case 3.—*Fatal.—Male æt.* 32. Four days' vague adbominal pain, 2 days' acute. Epigastric tenderness was a marked feature, and this region was first explored, with negative result. A right lower rectus laparotomy showed a loop of small intestine to be obstructed in a parasigmoid pouch. This was reduced, but the patient died on the following day. P.M.—Obstruction relieved, congestion of ileum and cæcum.

(4) Volvulus.

Case 1.—*Female, æt.* 13. Two days' vomiting and intestinal obstruction. Indefinite tender mass, dull to percussion, felt from pubes to just below umbilicus. Laparotomy demonstrated a volvulus of 3 feet of small intestine which had become completely gangrenous. No adhesions or other cause for volvulus was found. The gangrenous intestine was resected, and axial anastomosis performed. Recovery.

Case 2.—*Fatal.—Male, æt.* 20. Volvulus of small intestine. Resection and anastomosis. No notes and no P.M.

(5) Various.

Case of interest.—Fatal.—Male, æt. 9. Two previous attacks of vomiting without constipation, 9 months and 6 months before admission. Fourteen days unwell generally, 7 days' constipation and vomiting. The abdomen was retracted, and a small mass was palpable under the right upper rectus muscle. On laparotomy a fusiform swelling was seen in the jejunum, above which the bowel was dilated and below collapsed. On opening the intestine the mass was found to consist of undermined mucous membrane along the mesenteric border, perforated by two clean-cut ulcers with soft edges. A granulomatous mass raised the mucous membrane. The sub-serous lymphatics were opaque, but nothing else suggesting tubercle was found. The affected portion of jejunum (about 4 inches) was resected and axial anastomosis performed. After progress was complicated by broncho-pneumonia, and death occurred 21 days after operation. P.M.—Aspiration broncho-pneumonia, right empyema; anastomosis sound, bleeding, shallow duodenal ulcer just below pylorus; no tuberculosis found.

(*b*) Intussusception.

25 cases admitted during the year, 9 fatal, giving mortality percentage of 36. One case in adult. Laparotomy in all cases except one, which was admitted moribund. The types of intussusception were as follows: Ileo-cæcal, 16 (4 fatal); ileo-colic, 3 (1 fatal); cæco-colic, 2 (1 fatal); enteric, 1 (fatal); uncertain, 4 (reduced before operation, 1; fatal, 2).

Case of interest.—Recurrent intussusception. *Female, æt.* 3½. Previous laparotomy for intussusception at Victoria Hospital when 8 months old. Suffering with thread-worms for 3 months. Admitted with 4 hours' history of pain, vomiting, and passage of blood *per rectum*. Tumour felt in left hypochondrium. Laparotomy and reduction of ileo-cæcal intussusception. 12 days afterwards there was recurrence of pain, vomiting and passage of blood *per rectum*. Nothing could be felt in the abdomen, and the symptoms subsided. Child discharged. Re-admitted 9 weeks later with history of exactly similar recurrence of 2½ hours' duration. The third laparotomy was performed and an ileo-cæcal intussusception reduced. Recovery.

Fatal cases.—Shock, 5; gangrene of intestine, 1; peritonitis, 2; broncho-pneumonia, 1.

Enteric intussusception. *Male, æt.* 60. Three days' history of pain, vomiting, and constipation, with sudden onset. No mass felt. Laparotomy showed an irreducible enteric intussusception. This was resected and axial anastomosis performed. Death 2 days later. P.M.—Adhesive peritonitis round anastomosis.

(*c*) Obstruction due to Carcinoma. Cæcum, 2 (both fatal); transverse colon, 1 (fatal); splenic flexure, 4 (3 fatal); pelvic colon, 6 (3 fatal); rectum,

4 (2 fatal); 1 secondary to prostatic carcinoma; secondary to carcinoma of uterus, 1 (fatal).

Fatal cases.—Secondary growths, 4; pneumonia, 3; cachexia, 2; peritonitis, 2.

76. Rectum and Anus.

(*a*) Prolapse.—Recurrent, 1; no operation, 3.

(*b*) Fibrous Stricture.—Refused operation, 1; following Whitehead's operation, 1; following excision of rectum for tuberculous disease (readmitted with sinuses), 1.

(*c*) Polyp.—No operation in one case, possibly carcinoma.

(*d*) Carcinoma.—Recurrent, 2; refused operation, 1.

Fatal cases.—(1) *Female, æt.* 56. Admitted moribund with uræmia; previous admission 6 months before under diagnosis of colitis. P.M.—Mass of growth involving rectum, base of bladder, and uterus. Ureters constricted, double hydronephrosis.

(2) *Female æt.* 61. Six months' history of pain and passage of blood *per rectum.* A temporary left iliac colostomy was performed, followed a week later by Kraske's excision with anal anastomosis; a diffuse gangrenous periproctitis ensued, and the patient died from toxæmia. P.M.—Secondary nodules present in liver and lungs.

(3) *Male, æt.* 52. Two months' history of rectal pain and hæmorrhage. New growth present, extending some way up mucous membrane. Operation, abdomino-perinæal excision of rectum with permanent left iliac colostomy. Death from peritonitis. P.M.—Local peritonitis, growth entirely removed, no secondary deposits.

(4) *Male, æt.* 48. Dysentery in 1885; 10 weeks' history of tenesmus. High extensive growth present. Left iliac colostomy performed, followed 13 days later by Kraske's excision with sacral anus. Partial obstruction with abdominal distension followed the operation, and the abdomen was opened, but no peritonitis found. Death 18 days after the excision. P.M.—No peritonitis, secondary growths present in liver.

(5) *Male, æt.* 67. Malignant polyp of rectum. Died with peritonitis after the second stage of a left iliac colostomy operation. The ends of the colon had retracted within the abdomen, causing fæcal extravasation.

(6) *Female, æt.* 16. Seven weeks' abdominal pain and diarrhœa. Profuse and incessant blood and mucus passed *per rectum.* Well-marked ascites present. Under the diagnosis of tuberculous peritonitis laparotomy was performed. The peritoneum contained blood-stained fluid, and a matted mass of omentum was felt. A week later rectal examination discovered a rectal growth. Patient died in emaciated and cachectic state. P.M.—Diffuse abdominal carcinomatosis, no secondary growths. Circular growth in rectum nearly obliterating the canal, and fixed to surrounding structures. Microscopical examination proved the growth to be colloid carcinoma.

(*e*) Various.—Tumour of undetermined nature, 2; tuberculous papillomata of anus, 1; anal papillomata, 1; unexplained rectal hæmorrhage, 3; rectal pain, 2; rectal incontinence, 1.

77. Hæmorrhoids.

Also fissure *in ano*, 5; also thread-worms, 1; also urethral stricture, 1; no operation, 4.

78. (*a*) Fissure *in Ano*.—Also hæmorrhoids, 1.

(*b*) Fistula *in Ano*.—Horse-shoe type, 3; blind external, 2; submucous, 3; remainder complete. Also phthisis, 1; rectal polyp, 1; hæmorrhoids, 1.

79. Abdominal Pain.

Eleven cases were doubtful appendicitis; 7 of these were women.

Seven were doubtful cases of gall-stones, 9 of renal colic. One was probably lead colic.

In 4 cases laparotomy was performed, with negative results, but with no fatalities.

(1) *Man, æt.* 35. History of chronic dyspepsia, and of 24 hours' acute abdominal pain accompanied by vomiting. There were no signs of plumbism, nervous or renal disease. Nothing was found at operation; patient made a good recovery.

(2) One patient was admitted for abdominal pain, and improved with abdominal massage. She was admitted later in the year with more pain, however. She was a woman of 37, and her past history was appendicectomy for pain in 1904; nephropexy, 1905; gastro-jejunostomy, 1907; electrolysis, 1907; radical cure for femoral hernia, 1909.

80. Constipation.

Twenty-three cases in all. Six occurred in women between the ages of 20 and 30.

(1) *Female, æt.* 29. Very constipated. Anæmia. Abdominal pain for two years. Cæco-sigmoidostomy was performed with success.

(2) *Male, æt.* 70. Six months' dyspepsia. Three weeks' abdominal pain and constipation. Laparotomy was performed for supposed carcinoma, but nothing abnormal was found. Recovery.

81. Diarrhœa and Dysentery.

(1) *Male, æt.* 34. Had dysentery in S. Africa during Boer war.

On admission he passed 5 or 6 loose stools containing blood and a little mucus. Tenderness most marked in left iliac fossa. Colostomy was performed and patient improved. Stools still loose on discharge.

Two were cases of diarrhœa which improved rapidly under treatment.

One, a woman, æt. 34, with continuous diarrhœa for 10 months, was probably a case of tuberculous enteritis.

82. Dyspepsia.

Forty-three cases. In three cases only a test-meal was given, and in these free HCl but no lactic acid was present.

One bad case occurred in a man with chronic renal disease. One in a woman since she contracted syphilis 18 months before.

Most of the cases had pyorrhœa alveolaris.

In one case where a gastro-jejunostomy had been previously performed the opening was enlarged.

In one case gastroscopy was performed but nothing was seen

83. Dysphagia.

One case only, a *man, æt.* 52, with a history of 2 months' dysphagia, but bismuth bread was taken without trouble, and on discharge patient was able to take ordinary food.

84. Enteritis.

Twenty-eight infants under 5 years were treated for summer diarrhœa and vomiting, and of these 18 died, a mortality of 64·2 per cent. This high mortality may be accounted for by the great heat of the summer and also by the fact that a large number of the children were brought up in the last stages of the disease.

85. Abdominal, Various.

(*a*) Visceroptosis.

There were 18 cases of visceroptosis, and of these 1 case, which was complicated with mitral stenosis, died. Of the 17 non-fatal cases, all were in women. In 1 case gastro-duodenostomy and gastropexy were performed. In 1 case with a dropped liver and abdominal pain, the gall-bladder was explored but no gall-stones were present. In 2 other cases exploratory laparotomy was performed, and in 1 of these a pedunculated Reidel's lobe was found coming from the liver to the right of the gall-bladder fissure.

Ten cases were treated with abdominal belt.

(*b*) Abdominal Tumour.

There were 18 cases with 3 deaths.

Of the 15 non-fatal cases inoperable carcinoma found in 7 cases in which exploratory laparotomy was performed.

Interesting cases.

Woman, æt. 33. History of abdominal pain for two months. A cystic tumour was felt half an inch above the umbilicus. Laparotomy was performed and two cysts were removed from the great omentum. After the operation patient was noticed to have increasing pigmentation of the skin and buccal mucosa. Five months later she had vomiting, and she was very ill when discharged at the request of her relatives.

Boy, æt. 17. History of abdominal pain occurring at intervals for six years. Above the umbilicus a cystic swelling the size of a hen's egg could be felt. It was quite definite and freely mobile. Laparotomy was performed and a cystic tumour removed from the transverse mesocolon. It was in two portions, one in the mesentery, the other extending into the muscular coat of the bowel. At the operation the transverse colon was resected and lateral anastomosis performed. Report on the tumour: Probably congenital diverticulum.

Boy, æt. 14. Abdominal pain and wasting; 3 months' ascites. Indefinite pelvic tumour. Laparotomy was performed, but the boy died.

Post-mortem. Mesenteric and retro-peritoneal glands enlarged. Large mass of necrotic growth near sigmoid flexure. Microscopically round-celled sarcoma.

Man, æt. 27. History of swelling of the abdomen for three weeks with malaise. The case was thought to be one of tuberculous peritonitis. Laparotomy was performed and the ascitic fluid allowed to escape. The fluid contained many cells, mostly small lymphocytes. Pleural effusion developed and the patient died.

Post-mortem. Bowels and omentum matted. Mass as large as an orange just internal to cæcum. Some scattered nodules. Large left pleural effusion. Diagnosis: Tuberculous peritonitis, but microscopically it was found to be round-celled sarcoma.

(*c*) *Various.*

Man, æt. 39. History of an attack of abdominal pain four weeks ago lasting 4 days. Associated with vomiting and abominal distension. Two days after the attack a lump was noticed in the left iliac fossa. Operation was performed, and a small abscess was found about the pelvic colon. Appendix normal. Patient made a good recovery.

Woman, æt. 28. History of aching pain in abdomen for three years. For one year a lump had been noticed in the left loin. Laparotomy was performed and the lump found to be a spleen. Splenopexy. Recovery.

86. Foreign Bodies in Intestinal Tract.

Presence of foreign body not proved, 3; passed naturally, 5; bone extracted from rectum, 1; tooth-plate extracted from œsophagus, by œsophagotomy, 1—Recovery.

Fatal case.—Male, æt. 1. Button impacted in œsophagus. Extracted on withdrawing an exploratory bougie. Developed abscess of cheek and died of pyæmia. P.M.—Pyæmic abscesses of lungs, left empyema.

DISEASES OF DIGESTIVE GLANDS.

87. Salivary Glands.

Retention cysts.—Sublingual, 1; submaxillary, 2.

Carcinoma.—Submaxillary, 1; parotid, 1.

88. Cirrhosis of Liver.

(*a*) Portal Cirrhosis.—There were 26 cases of portal cirrhosis, and of these 4 were fatal.

Ascites was present in 17 of the non-fatal cases and 8 of these were tapped. The ascitic fluid was examined in 6 cases, and was found to contain chiefly endothelial cells in 4 cases and chiefly small lymphocytes in 2.

Hæmatemesis was noted in 6 cases.

A definite history of alcohol was obtained in 15 of the 23 non-fatal cases.

Œdema of the legs in 9.

Bronchitis in 2; pleurisy in 2; pleural effusion 1; jaundice in 4.

The Talma Morrison operation was performed in 2 cases.

(1) *Male, æt.* 44.—History of abdomen swelling for two months. Had been twice tapped. No albuminuria. Liver hard and nodular. Patient was discharged 1 month after operation.

(2) *Male, æt.* 35.—History of abdomen swelling for three weeks. Œdema of legs. No albuminuria. Liver found to be hard and nodular. Many adhesions were already existing between the liver and abdominal wall. Patient was discharged three months after the operation.

(*b*) Hanot's Cirrhosis.

Patient had been in hospital in 1909 and 1910 with the same complaint. Jaundice varying in intensity. No vomiting. No ascites. Fingers clubbed. Liver had been noticeably enlarged for three years. Spleen one year.

Patient improved with rest and was discharged.

(*c*) Syphilitic Cirrhosis.

One fatal case, a child of seven months with congenital syphilis. The child died shortly after admission.

Post-mortem.—Much ascites. Liver enlarged and hard. Spleen not enlarged.

Two non-fatal cases.

(1) *Boy, æt.* 2.—History of five weeks' jaundice and vomiting. Liver much enlarged. Wassermann reaction positive. Treated by inunction and potassium iodide.

(2) *Girl, æt.* 7.—History of six weeks' swelling of abdomen. Liver hard, smooth and much enlarged. Wassermann reaction positive. Improved under inunction and potassium iodide.

89. Cholelithiasis.

No operation performed, 12; history of previous enteric fever, 2; sinus followed cholecystostomy, 1; calculi lying in pocket outside gall-bladder, 1; also carcinoma of bile-duct, 1; readmitted for stone in common bile-duct after previous cholecystostomy, 1.

Fatal cases.—Peritonitis following cholecystectomy, 1; extravasation of gastric contents following cholecystostomy and division of multiple adhesions, 1; admitted moribund with uræmia due to chronic nephritis, 2.

90. Cholecystitis.

No operation performed, 1; chronic cholecystitis, 8; acute and subacute cholecystitis, 9.

In the acute cases the following organisms were grown from the gall-bladder: *B. coli,* 5 (also a staphylococcus, 1); *B. typhosus,* 2; sterile, 1. Both cases from which *B. typhosus* was grown gave no history of previous enteric fever. Both were cases of acute infection.

91. Jaundice.

Three cases of catarrhal jaundice; 2 of jaundice with large spleen.

(1) *Woman, æt.* 25.—Life-long history of attacks of jaundice. No family history of jaundice. Spleen much enlarged. Liver not palpable. Blood-count showed basophilic degeneration and some polychromatophilia, otherwise normal. Hæmolysis occurred with 0·6 per cent. sodium chloride in distilled water.

(2) *Man, æt.* 35.—Jaundiced since birth.

Third admission for jaundice. First time seven years ago. Congenital syphilis. Wassermann reaction positive. Spleen and liver enlarged. Fingers clubbed.

92. Pancreas.

There were 9 cases of carcinoma of the pancreas, of these 3 died and 6 were discharged. In two cases the fæces were examined for fat and the total fat was 78 per cent. Neutral fat 29·2 per cent.; fatty acids 48·8 per cent. in one case. In the other total fat 43 per cent.; neutral fat 19·6 per cent.; fatty acids 23·6 per cent Jaundice was present in 6 cases; liver palpable

in seven. In 2 of the 3 fatal cases there were secondary nodules in the liver, and in one of these secondary nodules in the gastro-hepatic omentum. No growth elsewhere. In one of the fatal cases cholecystostomy had been performed.

In 3 of the non-fatal cases operation was performed; exploration in only 1; cholecystostomy in 1; cholecyst-jejunostomy in 1.

Chronic Pancreatitis.

Male, æt. 28.—History of malaise for two months. Five weeks' epigastric pain and vomiting. Diarrhœa with blood and mucus. Leucocytosis 15,600 (74·8 per cent. polymorphonuclear leucocytes). Cammidge positive. Fæces contained = Total fat 36 per cent.; neutral fat 30 per cent.; fatty acid 6 per cent.

Patient was treated with pancreatin, and after five weeks in hospital he was much improved and discharged.

Acute Pancreatitis.

Female, æt. 55.—A stout healthy woman with no history of previous illness. Sixteen hours before admission she had sudden abdominal pain and vomited. The abdomen was distended and tender. Immediate operation was performed, and fat necrosis was found on the omentum and some blood-stained fluid was present in the abdomen. A drainage-tube was pushed down to the pancreas, which was hard, and the wound was drained.

Cammidge test C. Before fermentation, positive; after fermentation, negative.

Total fat in fæces 18 per cent.; neutral fat 12 per cent.; fatty acid 6 per cent.

Patient made a complete recovery

93. Digestive, Various.

(*a*) Carcinoma of Liver.—6 cases. Exploratory laparotomy performed in 2 cases.

Fatal case.—Male, æt. 63. Symptoms 3 months. Jaundice marked. Œdema legs; ascites. Ascitic fluid contained endothelial cells largely. Cammidge reaction negative. P.M.—Scirrhous carcinoma of liver.

(*b*) Carcinoma of Gall-Bladder.—Five cases, 2 of which were fatal. Exploratory laparatomy was performed in all the cases, and in 3 (including the 2 fatal cases) gall-stones were found in addition to the carcinoma.

(*c*) Gumma of Liver.

Female, æt. 29.—History of jaundice for 2 years. Much ascites; liver hard, large and nobby. Jaundice severe. Cammidge test C positive. Wassermann reaction positive. Patient died, and P.M. a gummatous liver with pericellular cirrhosis was found.

(*d*) Cyst of Liver.

(1) *Woman, æt.* 60. Abdominal pain many years. Worse 3 weeks; vomiting, no jaundice. Tumour felt in region of gall-bladder.

Operation: gall-bladder normal; large cyst in right lobe of liver. This was enucleated. Report from clinical laboratory: No hydatid hooklets. Recovery.

(2) *Girl, æt.* 4.—Swelling in right side of abdomen noticed for 2 years. On admission a large tumour was felt.

Operation: A large cyst was found in the under surface of the liver. It was

thought to be congenital. The cyst was drained, and the child made a good recovery.

(3) *Woman, æt.* 39. History of pain in the left hypochondrium for 6 months, lump noticed 5 weeks. A large, elastic, freely moving tumour was felt and was separated from the left kidney.

Operation: Drained. Many hundreds of daughter-cysts found in the cyst. Recovery.

Eosinophilia 4·5 per cent. Precipitin test (hydatid) positive. Complement test (hydatid) positive.

(*e*) Various.

One case of liver abscess in a patient who had had dysentery and had had a liver abscess drained 6 months previously.

One case of biliary fistula.

95. Tuberculous Peritonitis.

Twenty-seven cases; 5 fatal. Mortality, 18·5 per cent. Ascites was present in 9 cases.

Girl, æt. 14.—History of abdominal pain, vomiting and diarrhœa for two months. Slight evening pyrexia. Abdomen distended and doughy. Von Pirquet reaction positive. Patient wasted rapidly and died 1 month after admission.

P.M.—Wide-spread plastic tuberculous peritonitis. Mediastinal and mesenteric glands caseous. One of the fatal cases was complicated by measles and empyema; one by perigastric abscess and pulmonary tuberculosis.

Laparotomy and draining the fluid was performed in 5 cases with good results.

96. Peritonitis, Various.

(*a*) Local Peritonitis of Undetermined Cause.—Local intra-peritoneal abscess, 1; inflammatory peritonitis of right renal pouch, 1—exploration showed no perforation of duodenum or stomach, and patient recovered after drainage of renal pouch.

(*b*) General Suppurative Peritonitis.—Recovered, 4; died, 7. No cultures taken in 4 cases (3 fatal); pneumococcal infection in 3 cases (2 fatal); streptococcal in 2 cases (1 fatal); *B. coli* in one case (fatal); culture sterile in one case (recovered).

Fatal cases.—No P.M. in 4 cases—one of which died ten months after admission from peritonitis after enterectomy for closure of a fæcal fistula, which had persisted since the primary drainage of the peritoneum. In the other 3 cases the method by which infection had occurred was not discovered post mortem.

HERNIA.

97. a. Inguinal.

(*a*) Reducible.—No operation performed, 14; both sides, 47; with undescended testis, 5; varicocele also, 8; with hydrocele of tunica vaginalis, 6; with hydrocele of cord, 4; hydrocele of sac, 4; also hæmorrhoids, 1; tuberculous sac, 1; no sac, 4; appendix in sac, 1; hernia *en bissac*, 1; direct hernia, 9; also epigastric hernia, 1; also tuberculous peritonitis, 1.

Fatal cases.—(1) *Male, æt.* 9 months; developed measles and died with broncho-pneumonia. (2) *Male, æt.* $1\frac{2}{12}$; died under anæsthetic: P.M., no cause for death found.

(*b*) Irreducible.—No operation performed, 3; both sides, 3; omental only, 9; hernia *en glissade*, 4; cæcum and appendix in sac, 3; Fallopian tube and ovary in sac, 1; also hydrocele of cord, 1; developed empyema after operation, 1.

(*c*) Strangulated.—Contained cæcum and appendix, 4; recurrent, 2; resection of intestine required, 5.

Fatal cases.—Five males. Cause of death: Collapse of lung, 1; shock, 2; diarrhœa and vomiting, 1; pulmonary tuberculosis, 1; admitted moribund (no operation), 1,

(*d*) Recurrent.—See special table.

Fatal case.—See under Ventral Hernia.

B. Femoral.

(*a*) Reducible.—No operation performed, 1; both sides, 2; also cyst of epididymis, 1; hernia *en bissac*, 1.

(*b*) Irreducible.—Omental only, 6; also fibroma of vulva, 1; appendix in sac, 1.

(*c*) Strangulated.—Richter's hernia, 2; also direct inguinal hernia, 1; resection of intestine required, 4 (3 recoveries and 1 death).

Fatal cases.—Three females. Cause of death: Shock and cardiac disease, 1; bronchitis and œdema of lung, 1; peritonitis following resection and lateral anastomosis of intestine, 1.

C. Umbilical and Ventral.

(*a*) Reducible and Irreducible.—Incisional, 24; no operation performed, 6; also inguinal hernia and varicose veins, 1; also phthisis, 1; readmitted for removal of filigree, 1; interparietal omentum with no peritoneal sac, 1.

Fatal cases.

(1) *Male, æt.* 69. Enormous umbilical hernia irreducible for 23 years. Acute pain 5 hours. At operation the sac contained adherent omentum, large bowel, and about 15 feet of small intestine showing extensive thrombosis of the mesenteric vessels. There was no evidence of strangulation or volvulus. Fifteen feet of small intestine (ileum) were resected and axial anastomosis performed. Death occurred 4 days later from inanition. P.M.—Anastomosis perfect.

(2) *Male, æt.* 19. Operation 3 years previously for appendicitis and later resection of small intestine for obstruction due to adhesions. Admitted with a recurrent left inguinal hernia and ventral hernia in the appendix wound. Radical cure of both hernia with enterolysis was performed. Intestinal obstruction followed the operation, and 6 days later laparotomy was done and a volvulus of small intestine discovered. The base of the volvulus was formed by adhesion between two loops of intestine, and the gut was completely gangrenous. Three feet of ileum were resected and ileo-colostomy performed. Death from shock before reaching the ward.

(*b*) Strangulated.—*Case of interest.*—*Female, æt.* 69, with 22 year's history of umbilical hernia. Symptoms of obstruction one week. Operation: herniotomy with resection of 8 inches of transverse colon and formation of artificial anus by means of Paul's tubes. The patient developed erysipelas of the abdominal wall. Three months after the first operation the colostomy was closed, anastomosis being

performed by means of a Murphy's button. The button was not passed, so the abdomen was again opened 6 weeks later, and the button, which was found at the site of the anastomosis, was removed. The patient recovered.

Fatal cases.—Two males, 3 females. Cause of death: Shock following herniotomy and lateral anastomosis of small intestine, 1; broncho-pneumonia, 1; paralytic distension after herniotomy and reduction of a Richter's hernia of small intestine into a small umbilical hernia, 1; shock following herniotomy and reduction of transverse colon from umbilical hernia, 1; paralytic distension of small intestine after herniotomy and reduction of congested small intestine, 1.

(*c*) Recurrent.—All incisional. One case admitted with strangulation.

d. Various.

Case 1.—Lumbar hernia following operation for renal calculus and later nephrectomy.

Case 2.—Ruptured ventral hernia. *Female, æt.* 48, incisional ventral hernia since laparotomy for ovarian tumour 20 years previously. Six hours before admission the skin over the hernia ruptured and omentum protruded. Operation: ligature and removal of omentum followed by Mayo's radical cure; recovery.

Case 3.—Suppurating inguinal hernia.—*Male, æt.* 70. Irreducible hernia for one month, no obstruction. Inflamed swelling present in right groin. Operation, large abscess of hernial sac with Richter's hernia. The abscess was drained. Recovery without further interference. No hernia present on discharge.

Case 4.—Strangulated interstitial semilunar hernia.—*Female, æt.* 47. Two days, history of intestinal obstruction. Mass felt in left hypogastrium. Operation; an interstitial hernia with gangrenous small intestine was found protruding through the left linea semilunaris and passing between the abdominal muscles. Resection of 5 inches of small intestine with axial anastomosis was performed. The wound suppurated and a fæcal fistula formed. Death occurred from toxæmia following infective gangrene of the wound.

LYMPHATIC SYSTEM.

98. a. Simple Adenitis.

(*a*) Acute.—Neck, 11; groin, 9.

Fatal case.—Male, æt. 4; adenitis of neck following otitis media. Death 4 days after admission from broncho-pneumonia.

(*b*) Chronic.—*Case of interest.—Female, æt.* 60, with 10 years' history of glandular enlargement on both sides of the neck, both axillæ, and the left groin. The glands were discrete. There was no enlargement of the spleen and the blood-count was normal. A gland was removed for microscopy, and reported to show chronic lymphadenitis. At further operations glands were removed from both sides of the neck, from the right axilla and left groin.

b. Tuberculous.

Two cases of abdominal glands; rest cervical. Recurrent, 8; readmissions, 3; sinus, 2; developed measles, 1.

99. Carcinoma of Glands.

Inoperable, 4; recurrent, 2; occurring in neck, 7 (secondary to carcinoma of mouth and tongue, 2; to carcinoma of thyroid, 1; to carcinoma of breast, 1; primary focus not found, 3).

Fatal cases.—Male, æt. 61. Admitted with trismus of 14 days' standing. Fixed glands were present on the right side of the neck. No operation was performed and death occurred from broncho-pneumonia. P.M.—Simple ulcer of tongue, squamous carcinoma of cervical glands. No primary focus found.

Male, æt. 58. In 1907 epithelioma of tongue excised, in 1910 scrotum and right inguinal glands excised for epithelioma. Readmitted with large mass in left groin of suppurating malignant glands. Inoperable; died with pneumonia and general glandular carcinomatosis.

100. Various Affections of Glands.

a. Sarcoma.

(*a*) Melanotic 3 cases—readmission, 1; treated with Coley's fluid, 1.

(*b*) Lymphosarcoma 4 cases—neck, 2; groin, 1; multiple, 1. One case died later at infirmary with carcinoma of larynx.

Fatal case.—Female, æt. 35. Nine months' swelling in neck, proptosis of right eye 14 days. Admitted with general glandular enlargement, most marked in the neck. Dyspnœa was present. Treated without benefit with Coley's fluid. Tracheotomy was required. P.M.—Primary growth in cervical glands extending into skull and destroying the ethmoid and sphenoid bones. The right orbit, right jugular veins and lateral sinus were filled with growth. Extension had taken place into the superior mediastinum. General glandular involvement was present. The growth proved to be round-celled sarcoma.

(*c*) Spindle-celled Sarcoma.—Recurrent glands in groin after excision of a sarcomatous bursa of the great toe.

DISEASES OF DUCTLESS GLANDS.

101. Addison's Disease.

One, a *woman, æt.* 33, complicated by omental cysts, which were removed. See "Abdominal Tumour," 85 *b*.

The other a *woman, æt.* 39. History of general depression, nausea and vomiting for 5 months. Pigmentation 7 weeks. Blood-pressure 108. Diffuse bronzing skin. Also palate and buccal mucosa. Discrete brown patches on sclerotics. No signs of pulmonary tuberculosis.

102. Graves's Disease.

There were 6 fatal cases. One died of broncho-pneumonia. Two of cardiac failure. One of cardiac failure a month after ligature of the superior thyroid arteries. Two died within a few hours of ligature of the superior thyroid arteries.

(1) *Woman, æt.* 41. History 3 years, marked exophthalmos; palpitations; tremors; goitre. Developed broncho-pneumonia and died.

Post-mortem.—Thymus persistent, but not large. Spleen not enlarged. Heart,

brown atrophy. Kidneys, areas of lymphocytic infiltration. Liver, extreme fatty change.

(2) *Girl, æt.* 18. History of palpitation 2 months. Enophthalmos; goitre; pulse 120.

Ligature of superior thyroids. Became dyspnœic and weaker. Died 4 weeks after operation.

Post-mortem.—Thyroid much enlarged; surrounded the trachea, and compressed it laterally.

Thymus weighed 2 oz.

Spleen enlarged. Heart enlarged and dilated.

(3) *Man, æt.* 21. Goitre first noticed 18 months previously during an attack of scarlet fever; exophthalmos; palpitations; tremors.

Superior thyroid arteries ligatured, and patient died a few hours later.

Post-mortem.—Thyroid enlarged. Thymus much enlarged. Lymphatic glands of neck and mesentery enlarged. Heart hypertrophied.

(4) *Woman, æt.* 30. Had Graves's disease 12 years ago. Symptoms this time for 2 months; goitre; exophthalmos; tremor.

The superior thyroid arteries were ligatured, and patient died 4 hours later.

Post-mortem.—Thyroid and spleen much enlarged. Thymus weighed $4\frac{1}{4}$ ounces.

In ten cases the superior thyroid arteries were ligatured, and three of these were fatal. Mortality 30 per cent. Of the non-fatal cases the heart-rate was not reduced on discharge except in one case, where it varied from 84 to 90 on discharge; about 100 on admission. In this case also the exophthalmos was thought to be a little less.

103. Affections of Thyroid Gland.

(*a*) Diffuse Enlargement.—Parenchymatous, 10; fibrous, 1; vascular, 1; puberty, 1; colloidal, 1.

Pressure symptoms present in 9 cases, some thyroid toxæmia in 3 cases. Medical treatment only in 4 cases (thyroid extract 2, iron 1, sod. phos. 1). Recurrent laryngeal paralysis occurred after operation in one case.

Fatal case.—Female, æt. 17. Twelve months' history of swelling in the neck. Admitted with diffuse swelling of the thyroid and left abductor paralysis of the larynx with displacement of the trachea to the left. Operation—removal of thyroid isthmus. The trachea was fibrous and collapsed after removal of the isthmus, requiring tracheotomy. Later the tube could not be left out and the patient died with septic broncho-pneumonia.

(*b*) Adenoma and Cysto-Adenoma.

Pressure symptoms present in 13 cases, some thyroid toxæmia in 2 cases. Recurrent laryngeal paralysis, 2; pedunculated adenoma behind manubrium sterni, 1.

Case of interest.—Female, æt. 47. Swelling in neck for $2\frac{1}{2}$ years, with increasing dyspnœa on exertion. At operation an encapsuled adenoma was removed from the right lobe and isthmus. Half an hour after operation a large hæmatoma formed. This was opened up and the inferior thyroid artery was ligatured. After the second operation the pulse became very rapid and symptoms of tetany ensued, *i. e.* twitching of arms and legs, and attacks of spasmodic contraction of

the thoracic muscles. This condition gradually subsided, but some twitching of the hands persisted on discharge three weeks later.

(*c*) Carcinoma.

Inoperable, 1; recurrent, 1.

Case of thyroid cancer.—Female, æt. 50. Four years' swelling in the neck, apparently due to a parenchymatous goitre. Partial thyroidectomy was performed. Microscopical examination showed thyroid tissue invading the lymphatics. Recovery.

DISEASES OF THE GENITAL SYSTEM.

105. Breast.

Carcinoma.—Spheroidal celled, 51 (encephaloid, 1); columnar celled, 6. Recurrent, 10; inoperable, 7; previous amputation of other breast for carcinoma, 1.

Fatal case.—Female, æt. 78. Amputation wound suppurated and the flaps sloughed. Death from toxæmia. P.M.—Chronic nephritis.

106. Undescended Testicle.

Right side, 13; left side, 9; both sides, 7. No operation, 2; also hernia, 3; also hydrocele of tunica vaginalis, 1; strangulation of left undescended testis, 1.

107. Diseases of Testis.

(*a*) Tuberculous.—Both sides, 1; with sinus formation, 3; also phthisis, 1; also tuberculous cystitis, 1; treated with tuberculin, 6.

(*b*) Syphilitic.—Also tabes, 1.

(*c*) Acute Epididymitis.—Traumatic, 1; with enlarged prostate, 1; following gonorrhœa, 3.

(*e*) Malignant.—Spheroidal carcinoma of testis, 3.

108. Tunica and Processus Vaginalis.

(*a*) Hydrocele.—Both sides, 2; recurrent, 1. Infantile type, 4; congenital, 3; remainder acquired.

109. Diseases of the Ovary.

(*a*) Cysts, Simple and Multiple.—13 cases, simple. 3, disease bilateral, in one of these both ovaries were removed, in the other two part of one ovary was left; 1, twisted pedicle; 1, vermiform appendix also removed; 1, died from general peritonitis; 2, cysts infected; one of these also had a pyosalpinx, which was removed, and the other had a hysterectomy done as the uterus was fibrotic, this latter case died on the eighth day after the operation from general peritonitis; 1 the cyst disappeared while an examination was being made.

22 cases, cystadenoma. 4, twisted pedicle; 1, followed by obstruction 4 days after removal, the abdomen was reopened, adhesions broken down, and the patient made a good recovery; 2, also had a ventral fixation for prolapse of the uterus; 1, a dermoid cyst was present also in the same ovary; 1, some small uterine fibromyomata were also enucleated.

3 cases of blood-cysts.

6 cases of papillomatous cysts. 1, disease bilateral and turned out on microscopical examination to be columnar-celled carcinoma; 1, no operation, but P.M. examination showed multiple growths on the peritoneum as well as extensive ovarian disease.

2 cases of lutein cysts. 1, disease bilateral and followed on a hydatiform mole. On microscopical examination the presence of chorion-epithelioma was shown so a vaginal hysterectomy was done, the uterus showing a small nodule of growth in the wall.

(*b*) Dermoid Cysts.—2 cases. 1, unilateral; the patient was 3½ months pregnant, but removal did not interfere with the pregnancy; 1, bilateral part of one ovary was left.

(*c*) Other Diseases.—9 cases of carcinoma of ovary. 7, secondary growths were present; in 3 of these the cyst was removed, in the others it was impossible. In one of the inoperable ones in which secondary growths were obstructing the duodenum a gastro-enterostomy was done; 1, the ovary had been previously removed for carcinoma and numbers of secondary growths were found on abdominal exploration; 1, in a patient 27 years of age.

(*d*) Broad Ligament Cysts.—1 case only, in which the cyst was removed.

110. Disease of the Fallopian Tubes.

(*a*) Salpingitis.—32 cases disease bilateral; 7 cases unilateral, 4 of these were treated by rest in bed; 2 cases tuberculosis and tuberculous peritonitis was also present; 1 case died from spreading peritonitis following operation, removing both appendages, which were much inflamed and purulent; 3 cases were readmissions: 1 had been treated by rest previously, and was found to have a pyosalpinx and abscess of ovary on the right side and inflammation of the left appendages; 1, pelvic abscess following supra-vaginal hysterectomy, with removal of both tubes and left ovary; 1, for obstruction by a band; the abdomen was opened and the strangulation relieved, but the patient died.

Complications.—6 abscess of ovary; 3, cyst of ovary; 1, menorrhagia; 4, appendicitis (slight); 4, retroversion; 1, prolapse of uterus; 1, fibromyoma uteri.

(*b*) Pyosalpinx and Tubo-Ovarian Abscess.—14 cases disease bilateral; 12 cases unilateral; 7 cases tubo-ovarian abscess (2 of these bilateral).

Complications.—4, cystic ovary; 3, suppurating cyst of ovary; 4, salpingitis; 5, appendicitis. Of the 33 cases, 25 had a drainage-tube left in when the operation was completed; 13 of the cases had cultures taken of the pus in the tubes; 7 of the cultures were sterile; 2 grew *Streptococcus pyogenes*; 2 grew *diphtheroid bacilli*; 1 grew *Staphylococcus aureus*; 1 grew *Staphylococcus albus*. There were two deaths; 1, a tubo-ovarian abscess, had general peritonitis before operation; the other, a double tubo-ovarian abscess, died from peritonitis; the pus from abscess grew *Staphylococcus aureus*; 1 case readmitted with intestinal obstruction, which was relieved by operation.

(*c*) Hydrosalpinx.—6 cases unilateral; 1 bilateral.

Complications.—Retroversion, 1; tubo-ovarian cyst on opposite side, 1; salpingitis, 2; adhesive peritonitis, 1.

111. Ectopic Gestation.

9 cases of tubal mole; 3, tubal abortion with pelvic hæmatocele; 4, ruptured tubal gestation; 2 cases of ectopic gestation going beyond the sixth month.

One of the cases of pelvic hæmatocele was suppurating, and had to be drained.

112. Menstrual Disorders.

(*a*) Menorrhagia.—5 cases with dysmenorrhœa; 1 case with hæmorrhoids; 1 case with prolapse; 1 case fibrotic uterus (early); 8 cases metrorrhagia; of these, 4 had had curetting done two or three times so hysterectomy was performed.

(*b*) Dysmenorrhœa.—4 cases with hæmorrhagia; 3 cases with sterility; 1 case with dyspareunia; 1 case with retroflexion; 1 case with cyst of left ovary; 2 cases of monthly pain with amenorrhœa.

(*c*) Various.—One case of amenorrhœa due to maldevelopment of uterus, also had a broad ligament cyst.

113. Pregnancy and its Disorders.

(*a*) Abortion.—56 cases incomplete; 6 cases inevitable abortion; 1 case carneous mole; 2 cases hydatidiform mole; 1 case threatened abortion; 1 case missed abortion; 1 case general peritonitis following abortion—this patient died. One of the cases of incomplete abortion had a complete rupture of the perinæum from a previous labour and this was repaired.

(*b-i*).—See report of Mary Ward.

114. Diseases of the Body of the Uterus.

(*a*) Endometritis and Adenoma of Endometrium.—3 cases purulent endometritis; 4 cases decidual endometritis; 1 case associated with an inflamed cyst of the left ovary, which was removed together with the left Fallopian tube; 1 associated with an ovarian cyst which ruptured under examination and was left; 1 of gangrenous endometritis with pelvic cellulitis and peritonitis. A complete hysterectomy with removal of appendages was performed, but the patient died; a culture of the peritoneal fluid grew *Bacillus aërogenes capsulatus*.

(*b*) Fibromyomata.—49 cases of the body of the uterus; 9 cases of fibrotic uterus; 1 case of the cervix. 7 cases showed degeneration: 2 œdematous degeneration, 2 cystic degeneration, 1 necrobiotic degeneration, 1 necrotic degeneration, 1 calcareous degeneration. The treatment was, in 22 cases total hysterectomy (abdominal); 28 cases supra-vaginal hysterectomy; 2 vaginal hysterectomy; 2 myomectomy; 4 enucleation; 1 dilatation and curetting.

Complications.—2 with cystic ovaries; 2 with blood-cysts of ovary; 2 with double hydrosalpinx; 1 with double hæmatosalpinx; 1 with double salpingitis; 2 with appendicitis (slight); 1 with pregnancy, in this case a myomectomy was done, and although in shelling out an interstitial fibroid the membranes were exposed, the patient went to term and had a normal confinement.

There were 2 deaths, both from general peritonitis following operation.

(*c*) Polypi.—12 cases of fibroid polypi, in 4 of which the tumour was sloughing; 3 cases of adenomatous polypi; 1 case of placental polyp; 1 case also had a blood-cyst of ovary and retroflexion so an abdominal hysterectomy was done; 1 case with a urethral caruncle.

(*d*) Carcinoma of Body.—1, a combined vaginal and abdominal hysterectomy was done, but the patient died from general peritonitis.

(*e*) Uterine, Various.—6 cases of sterility; 2 cases of abscess in uterine wall, both puerperal in origin, in 1 case the abscess had ruptured into the peritoneal cavity, in the other case a culture of the pus grew a streptococcus; 1 case of pyometra for which a vaginal hysterectomy was performed.

115. Diseases of the Cervix.

(*a*) Carcinoma.—13 cases inoperable; 4 cases Wertheim's operation; 4 cases abdominal hysterectomy; 1 case combined abdominal and vaginal hysterectomy; 1 case associated with pregnancy was inoperable but a supra-vaginal hysterectomy was done.

There were four deaths—1 from shock in the first 24 hours after operation; 1 Wertheim's; 1 from diabetic coma; 1 inoperable case died in hospital, and P.M. examination showed diffuse abdominal carcinomatosis.

(*b*) Various.—1 elongation treated by amputation; 2 torn cervix with leucorrhœa, Emmet's operation.

116. Pelvic Inflammation.

(*a*) Cellulitis.—6 cases. 2 treated by rest; 3, abscess incised, the following organisms were grown from the pus: (1) *Staphylococcus albus, diphtheroid bacillus, B. proteus;* (2) *B. coli,* a *diplococcus*; (3) *Streptococcus pyogenes*; 1 case with peritonitis, laparotomy and drainage.

(*b*) Pelvic Peritonitis.—12 cases pelvic abscess: 4, treated by incision through posterior fornix; 5, treated by laparotomy and drainage; 3, discharged naturally *per rectum.* 3 cases pelvic inflamation treated by rest in bed; 2 cases encysted perimetritis treated by laparotomy; 1 case adhesive perimetritis, laparotomy.

One of the cases which discharged *per rectum* was readmitted with double salpingitis and a left ovarian abscess. Treatment, removal of both tubes and left ovary.

One case in which an abscess was incised in the left iliac fossa was readmitted with a similar condition on the right side which was also treated by incision.

One case incised P.V. readmitted with a double pyosalpinx and abscess of left ovary. Removal of both tubes and left ovary.

In the cases where cultures were taken of the pus—*Streptococci,* 4 cases; *staphylococci,* 2 cases; *B. coli,* 1 case; *B. proteus,* 2 cases; various, 2 cases.

117. Vagina and Vulva.

(*a*) Epithelioma.—1 case.

(*b*) Bartholin's Gland.—5 cases of abscess, incised; 1, inflamed cyst, dissected out; 1, simple cyst, no treatment.

(*c*) Urethral Caruncle.—4 cases, excision and cautery.

(*d*) Hæmatocolpos.—2 cases, incision of septum.

(*e*) Vaginal, Various.—1 case blood-cyst, traumatic in origin; 1, gonorrhœal vaginitis in a child; 1, varicose veins of vagina, excision; 1, vaginismus, excision of hymen, dilatation and curetting; 1, ulcer following use of pessary.

(*f*) Leucorrhœa.—8 cases. 1 with dysmenorrhœa also; 1 with middle pain also.

(*g*) Vulva, Various.—1 case soft fibroma excised, also had a small ovarian

cyst with a twisted pedicle for which ovariotomy was done; 1, papillomata, excised and cautery; 1, hæmatoma (traumatic), clot evacuated; 1, pain in perinæum, rest.

118. Ruptured Perinæum.

12 cases complete; 1 also had complete procidentia; 3 cases incomplete.

119. Prolapse and Displacements.

(*a*) Prolapse of Uterus.—2 cases with pregnancy, treated by rest; 2 cases with retroversion, ventral fixation, and in 1 case a posterior colpo-perineorrhaphy also; 6 cases with hypertrophy of cervix, amputation of the cervix in all cases, in 1 case, ventral fixation, in 5, post. colpo-perineorrhaphy; 9 cases treated with post. colpo-perineorrhaphy, and in 2 of these ventral fixation also. 2 cases complete procidentia, 1 case treated by amputation of cervix, ventral fixation and post. colpo-perineorrhaphy; 1 case by Le Fort's operation.

(*b*) Prolapse of Vaginal Walls.—6 cases, 5 treated by post. colpo-perineorrhaphy, and in 1 of these ant. colporrhaphy was also done, and in 1 amputation of cervix; 1 case of cystocele, ant. colporrhaphy.

(*c*) Retroversion.—7 cases ventral fixation; 1 case Hodge pessary; 1 case rest.

URINARY SYSTEM.

121. Movable Kidney.

Complicated by hydronephrosis, 2; treated by abdominal belt, tonics, etc., 3; treated by operation, 14. In one case the condition had recurred 7 years after a previous nephropexy.

122. Renal Calculus and Colic.

X-ray examination was positive in fifteen cases. Of these a calculus was found on nephrotomy in 13 cases, no operation was performed in one case, and the patient died of uræmia before operation in another case.

No evidence of calculus was given by X rays in 27 cases—in 6 of these cases the kidney was explored, and calculi found in 4 cases. In one case the patient was discharged and passed a small calculus naturally some time afterwards.

Fatal cases.—Suppurative pyelo-nephritis, 1; uræmia, 1 (bilateral calculi).

123. Hydronephrosis.

Due to nephroptosis, 1; apparently due to high emergence of ureter from pelvis, 3.

Fatal cases.

(1) *Female, æt.* 38. Plastic operation on ureter for hydronephrosis due to high emergence of ureter. Death from pyelitis and pyæmia. P.M.—Suppurative pyelo-nephritis, pyæmic infarction of lungs.

(2) *Male, æt.* 19. Admitted moribund and died in uræmia. P.M.—Bilateral hydronephrosis, no cause found.

(3) *Male, æt.* 32. Treated for pyuria, and died in uræmia. P.M.—Left hydronephrosis, due apparently to a high exit of ureter; also suppurative right pyelo-nephritis.

124. Pyonephrosis.

No cause found in 3 cases, due to calculus in 5 cases. Readmitted with pyuria, 1. Cultures sterile in 3 cases, not examined in 2, and gave *B. coli* in 3 cases.

125. Kidney and Ureter, Various.

(1) *Pyelitis.*—Five cases, no fatalities. In two cases a vaccine was made and the patients treated with it.

One case was complicated with perinephric abscess.

(2) *Tumour.*

(*a*) *Male, æt.* 53. History of 2½ years' pain in left loin. Frequency of micturition. No hæmaturia. X-ray negative. Exploration, hard nodular kidney fixed by dense adhesions. Hard glands.

(*b*) *Male, æt.* 47. History of pain in left loin for 8 weeks. Pain started in left testicle. Left kidney felt to be enlarged. X ray *nil.* Urine: albumen. Patient died suddenly in ward. P.M.—Papillomatous carcinoma in upper pole of left kidney. Embolism (microscopically carcinoma) in left branch of pulmonary artery.

(*c*) *Woman, æt.* 50. History of right lumbar pain for 8 weeks. Lump felt. No hæmaturia. Right kidney excised. Simple papilloma. One non-fatal case of cystic kidney in a man, æt. 35. The kidney was successfully removed.

Three fatal cases of congenital cystic kidney. All these patients died from uræmia, and in each case the disease was bilateral. The ages were 35 and 54, males; 29, female.

(3) *Tuberculosis.*

Four cases. Tubercle bacilli not found in the urine. Two cases complicated by pulmonary tuberculosis. In 3 cases nephrectomy was performed. One fatal.

Fatal case.—Male, æt. 31. History 20 months' pain. Pyuria. Frequency. Faint shadows X-ray. Operation: Extensive caseation upper pole of left kidney, which was excised. P.M.—Lungs. Old cavities. Both lungs tuberculous. Peritoneum, multiple tubercles. Right kidney, liver and spleen also studded with tubercle.

126. Acute Nephritis.

Twelve non-fatal and 3 fatal cases. Mortality 20 per cent. A history of scarlet fever in one case only.

On discharge 5 patients had no albuminuria.

Fatal cases.—Female, æt. 8. Six days' vomiting. General anasarca. Pleural effusion right and left. Mitral disease.

Post mortem.—Both kidneys were very dark, congested, and acutely inflamed. Serous effusion in pleural cavities and peritoneal cavity. Heart hypertrophied, and showed signs of old endocarditis on mitral and tricuspid valves.

Male, æt. 14. History 4 days. Ascites. Much œdema. Lumbar puncture, few polymorphonuclear cells. Ascitic fluid, endothelial cells.

Patient was in the hospital for 6 months and had several attacks of uræmia with vomiting and convulsions. He died in uræmic condition. P.M.—Recent pericarditis. Acute gastritis. Kidneys showed severe nephritis.

Male, æt. 40. History of 3 days' acute abdominal pain. Vomiting. Anuria. Died eighth day of disease. P.M.—Acute congestion of kidneys. ? Metallic poisoning.

127. Chronic Nephritis.

Fifty-seven cases, 19 fatal. Mortality 33·3 per cent.

Of the 38 *non-fatal cases,* 4 had uræmic symptoms in hospital; 4 had albuminuric retinitis; 1 had mental symptoms; 2 had a past history of fits; 1 a past history of hemiplegia; 2 cirrhosis of the liver; 1 ascites requiring repeated tappings; and 1 asthma.

Male, æt. 44. Strong history of alcohol. Chronic bronchitis. Dyspnœa and œdema of legs 7 months. Liver enlarged and hard. Arteries thickened. Urine albumen, and granular casts. Patient improved under treatment, and on discharge the urine contained a trace of albumen, but no casts.

Male, æt. 26. No scarlet fever. Syphilis one year previously. Five weeks' œdema of face and legs. Urine contained blood, epithelial and granular casts. Wassermann reaction positive. Some improvement under treatment with hot-air baths, liquor hydrarg. perchlor. and potassium iodide and aperients.

Male, æt. 54. Family history of asthma. Two years ago patient had œdema of legs but recovered. One month ago this recurred. Urine contained trace of albumen. No casts. Blood-pressure at brachial 135 mm. Hg. Treatment hot packs. Albumen present on discharge, but no œdema.

Male, æt. 61. Brought up unconscious with a history of sudden blindness, loss of consciousness and twitchings of the limbs. For two months he had had dyspnœa at night. Fourteen years ago he had his legs paralysed temporarily. Arteries much thickened. Heart hypertrophied. Heavy cloud of albumen.

Patient was treated with hot packs and pilocarpine, and made much improvement.

Female, æt. 28. Many years' dyspnœa. Hæmaturia 6 weeks ago. Continual headaches. No history of syphilis. Urine, trace of albumen. Patient was brought in semi-comatose, but improved rapidly.

Of the 19 *fatal cases,* 10 died of uræmia; 2 of pneumonia; 1 of bronchitis; 1 of acute œdema of lungs; 1 of general peritonitis following perforated duodenal ulcer; 4 from cardiac failure.

Woman, æt. 38. Patient has a past history of dyspnœa. On admission she was very cyanosed. Rhonchi and crepitations heard all over the chest. Onset of acute symptoms 1 day. Patient died on the day of admission. P.M.—Œdema of lungs. Chronic interstitial nephritis.

Male, æt. 68. Dyspnœa and occasional œdema of legs for 5 years. Worse for 3 weeks before admission. General bronchitis, greatly thickened arteries. Œdema of legs. No cardiac murmurs. Urine, cloud of albumen. Granular casts. Brachial blood-pressure 180 mm. Hg. The amount of albumen increased in spite of treatment, and a left-sided pleural effusion developed. Aspiration, 2½ pints. Patient died 3 months after date of first admission. Kidneys: interstitial nephritis.

Male, æt. 46. Admitted with a history of slight œdema and dyspnœa for 6 months. Brachial blood-pressure 250 mm. Hg. Albumen ⅓–½. Renal retinitis. Diastolic aortic murmurs. After being in hospital for 3 weeks he developed abdominal pain and vomiting which were thought to be uræmic, and a few days

later he died. P.M.—General peritonitis. Large perforated ulcer in anterior wall of duodenum. Cardiac hypertrophy. Aortic incompetence. Advanced chronic interstitial nephritis.

Female, æt. 41. History of œdema and albuminuria. Two years' weakness of legs. Scanning speech. Nystagmus. Since admission incontinence of urine. Wassermann negative. P.M.—Chronic mixed nephritis. Spinal cord—Cervical: lateral column degenerated on one side. Lumbar: bilateral degeneration of lateral columns. Thoracic: *nil.*

128. Vesical Calculus.

Recurrent, 1; also ureteric calculus, 1.

Fatal case.—cystitis, 1.

129. Bladder.

(*a*) Simple Cystitis.—Chronic, 9 (following old prostatectomy, 1; following partial excision of bladder for carcinoma, 1).

Acute, 8 (1 readmission).

Fatal case.—Male, æt. 41. Died with uræmia.

(*b*) Tuberculous Cystitis.—Readmissions, 2; bacilli found in urine, 6; treated by tuberculin, 4. Also phthisis, 1; tuberculous epididymitis, 1; ureteric disease, 1; nephritis, 2.

Fatal cases.—(1) *Male, æt.* 18. Died with uræmia.

(2) *Male, æt.* 35. Eighteen months' occasional hæmaturia, no frequency of micturition. Tuberculous cystitis diagnosed by cystoscope and bacilli found in urine. One month after admission a prevesical abscess formed. This was drained and a urinary fistula resulted. Death in a toxæmic condition. P.M.—Suppurative pelvic cellulitis, both ureters and left kidney disorganised with tuberculous disease, and disseminated tuberculous peritonitis present.

(*c*) Papilloma.—Recurrent, 2; malignant infiltration of bladder-wall, 1 (refused excision of bladder).

(*d*) Carcinoma.—No operation, 1; refused excision of bladder, 1.

Fatal case.—Male, æt. 45. Died with bilateral hydronephrosis and pyopericardium.

(*e*) Unclassified.—Atonic dilatation, 1; contracted bladder (probably tuberculous, 1); varix of submucous plexus, 1 (readmission).

Fatal case.—Foreign body in bladder. *Male, æt.* 58. Treated at two hospitals for difficulty of micturition in May, 1911, at which time some instrument was passed. Admitted September, 1911, with acute retention of urine. A calculus was found to be impacted in the urethra about 2 in. from the meatus. This was extracted and the patient discharged. Except for frequency of micturition there was no further trouble until October, 1911, when he was readmitted on account of frequency and difficulty of micturition. Sounds detected calculus in the bladder, and the X ray showed a large foreign body also. A swelling in the perinæum was present, which on incision proved to be early extravasation of urine. Supra-pubic cystostomy was performed and a solid rubber bougie 10 inches long and encrusted with phosphates was removed from the bladder, together with a facetted calculus corresponding to that previously removed from the urethra. Very marked pyuria was present before operation. This did not clear up with the supra-pubic drainage; pyrexia with

occasional rigors followed, and the patient died in a uræmic state. P.M.—Chronic cystitis and double pyelo-nephritis.

130. Prostate.

(*a*) Simple Enlargement.

Admitted with retention of urine, 14; refused operation, 1; previous supra-pubic cystostomy, 2; acute epididymitis followed operation, 3.

Prostatectomy mortality 10·7 per cent.

Fatal cases.

(1) *Male, æt.* 76. One week dysuria, treated by catheters. Twenty-four hours' acute retention. Bladder was drained above the pubes under local anæsthetic. A rigor and partial suppression of urine followed, and the patient died of uræmia 2 days later. P.M.—Large prostate, hypertrophied bladder, and double hydro-nephrosis.

(2) *Male, æt.* 68. Retention of urine with dribbling overflow for 3 days. Supra-pubic cystostomy performed on admission, followed a week later by prostatectomy. Partial suppression of urine followed the second operation. P.M.—Cystitis and slight pyelo-nephritis.

(3) *Male, æt.* 81. Seven years' difficulty of micturition, and hæmorrhage with partial retention 4 days. Supra-pubic cystostomy performed. Suppression of urine followed and the patient died uræmic. P.M.—Very large prostate, cystitis, chronic and acute nephritis with small cysts and multiple abscesses in both kidneys.

(4) *Male, æt.* 75. Three weeks' intermittent retention of urine. Supra-pubic cystostomy performed on admission. Rigors commenced 4 days after operation and death occurred a week later. P.M.—Marked cystitis, no gross disease of kidneys.

(5) *Male, æt.* 60. Three months' attacks of acute retention. Catheters passed daily for last 3 weeks. Supra-pubic prostatectomy was performed. Cellulitis and thrombosis of the right leg followed the operation, and one month later he developed facial erysipelas, and finally died with pneumonia 2 months after admission. P.M.—Hypertrophied bladder, kidneys healthy, right lobar pneumonia, and diffuse septic meningitis.

(6) *Male, æt.* 65. Two years' frequency of micturition. Admitted with retention, relieved by catheters. Death under anæsthesia before operation. P.M. at coroner's court.

(7) *Male, æt.* 62. Some months' dysuria. Admitted with acute retention of urine. Supra-pubic cystostomy was performed. Patient developed acute mania, and died 1 week after operation. No. P.M.

(8) *Male, æt.* 79. Six weeks' difficulty of micturition. Well-marked cystitis was present. Patient died in uræmic condition after supra-pubic cysto-tomy. P.M.—Cystitis and chronic interstitial nephritis.

(*b*) Prostatic Calculi.

Fatal case.—Male, æt. 43. One year difficulty of micturition, acute retention of urine 12 hours. On admission a Gouley catheter was passed and left in position for 3 days. Pyuria was present and rigors followed. Supra pubic cystostomy performed. Multiple pyæmic abscesses appeared (culture, *Staphylococcus aureus* and *B. coli*) and death ensued. P.M.—Prostate packed with small calculi, bladder hypertrophied and showing acute cystitis, bilateral hydronephrosis,

perinephritic abscess, hæmorrhagic broncho-pneumonia and septic changes in viscera.

(*c*) Carcinoma.—No operation, 2; previous prostatectomy for carcinoma (no recurrence), 1.

Fatal case.—Male, æt. 72. One year frequency of micturition, 2 days' retention relieved by catheters. Admitted with partial suppression of urine and symptoms of uræmia. Catheters passed 6-hourly. Death 2 days later. P.M.—Spheroidal-celled carcinoma of prostate, cystitis, and chronic interstitial nephritis.

131. Urethra and External Genitalia.

(*c*) Urethritis.—See also gonorrhœal rheumatism. Also multiple arthritis, 1; treated with vaccine, 1; treated by local applications after urethroscopy, 2; treated by sounds, 1.

(*d*) Impacted Calculus in Urethra.

Case 1.—*Male, æt.* 8. Calculus impacted near meatus. Removed after slitting meatus.

Case 2.—*Male, æt.* 3½. Four days' perinæal pain, retention of urine 12 hours. Calculus felt on rectal examination in prostatic urethra. It was pushed back into the bladder and extracted by lithotrity.

132. Stricture of Urethra.

All due to gonorrhœa. Admitted with retention of urine, 21; re-admissions, 5; with urinary fistulæ, 2; developed secondary erysipelas, 2; developed arthritis after operation, 1.

Cases of extravasation of urine—4 recovered, 3 died.

Case 1.—*Æt.* 43. Admitted with acute retention. Gouley guide passed and tied in. Extravasation noticed the following day. A perinæal incision was made and the urethra opened behind the stricture. Perinæal wound healed and sounds were passed. Recovery.

Case 2.—*Æt.* 52. Cock's puncture for acute retention 6 months before. Admitted with extravasation in the perinæum. After supra-pubic aspiration a catheter was passed and tied into the bladder. Incisions were made into the perinæum. Three days later external urethrotomy was performed. Recovery.

Case 3.—*Æt.* 47. Difficulty of micturition without complete retention. Sounds passed under anæsthesia on day of admission. On the following day extravasation had occurred, extending to the level of the umbilicus. Multiple incisions were made and a catheter tied into the bladder. Recovery.

Case 4.—*Æt.* 64. Old-standing stricture and retention of urine on admission. A Gouley guide was passed and tied in. On the following day extravasation was present. Cock's puncture was performed and incisions made into the perinæum and scrotum. Recovery.

Case 5.—*Æt.* 37. *Fatal.*—Three attacks of retention since gonorrhœa 16 years before; 14 hours' acute retention. After supra-pubic aspiration a Gouley guide was passed and tied in. Marked pyuria was present. Three days later sounds were passed. Rigors followed, and the patient became collapsed and died 2 days after passage of sounds. P.M.—Extravasation of urine from false passage in membranous urethra. Cystitis and sacculation of bladder, bilateral pyelo-nephritis, old pulmonary phthisis.

Case 6.—*Æt.* 58. *Fatal.*—Stricture 14 years; acute retention 12 hours. On

admission a Gouley catheter was passed, followed by sounds. Pyuria present. Four days later perinæal and supra-pubic extravasation was noticed. Bladder opened above pubes and multiple incisions made. Death on following day. P.M. —False passage from in front of triangular ligament to the retro-pubic cellular tissue. Diffuse pelvic cellulitis, hypertrophied bladder, kidneys healthy.

Case 7.—*Æt.* 54. *Fatal.*—Stricture 15 years. Passed catheters himself during last 5 years. Fourteen days' swelling of scrotum. On admission the scrotum had nearly sloughed away and extravasation had extended all over the anterior abdominal wall. Multiple incisions were made. Death from toxæmia. No P.M.

Other fatal cases.—(1) *Æt.* 54. Stricture with perinæal urinary fistulæ. Bath treatment. Death occurred from uræmia. P.M.—Acute cystitis, pyonephrosis (left), pyelitis with cortical abscesses (right), œdematous pia arachnoid of brain.

(2) *Æt.* 50. Stricture with retention of urine. Sounds passed on day of dmission. Death from uræmia 1 week later. P.M.—Bilateral hydronephrosis.

(3) *Æt.* 68. Thirty years' stricture. Admitted with retention of urine. A Gouley catheter was passed and tied in. Suppression of urine followed, left lumbar nephrotomy was performed without relief, and death took place from uræmia. P.M.—Cystitis and chronic interstitial nephritis.

133. Urinary, Various.

(*a*) Bacilluria and Pyuria.

B. coli cultivated, 1; treated with urinary antiseptics, 4.

(*b*) Hæmaturia.

Negative exploration of kidney, 2; treated with tuburculin, 1.

(*c*) Hæmoglobinuria.

Paroxysmal, 1.

(*d*) Albuminuria.

Unexplained, 1; orthostatic, 1 (treated with calcium lactate and adrenalin).

(*e*) Unclassified.

Spasmodic retention of urine, 2; dysuria of unexplained cause, 5; incontinence following prostatectomy, 1; nocturnal incontinence, 1.

DISEASES OF MUSCLES.

134. Muscles.

Three cases of pseudo-hypertrophic muscular dystrophy.

(1) *Boy, æt.* 9. No family history. Onset 3 years ago. Calf muscles, extensors of legs, deltoid, triceps hypertrophied. Infra-spinatus not affected. Pectorals and latissimus dorsi atrophied. Knee-jerks absent. Face not involved.

(2) *Boy, æt.* 10. Onset when 3 years of age. No family history. Calf muscles alone hypertrophied. Infra-spinatus not affected. Wasting of shoulder muscles, especially latissimus dorsi. No enlargement of glutei or vastus externus. Knee-jerks absent. Face not involved.

One case of amyotonia congenita.

Female, æt. 4. Inability to walk and loss of power in muscles, especially of legs. Legs limp. No wasting. A few voluntary movements can be performed by legs. Upper limbs normal, thoracic muscles normal, abdominal muscles weak. Deep reflexes of legs absent, but affected muscles respond to Faradic current.

One case of myasthenia gravis.

Female, æt. 22. Jewess. No family history. Five years ago ptosis occurred when patient was tired. Later weakness in arms noticed. Now patient cannot stand, and can just move the legs. Can lift a cup with her hands if not tired. Looks as if she is crying when she smiles.

DISEASES OF BURSÆ AND TENDON SHEATHS.

135. (*a*) Acute and Suppurative Bursitis.

Suppurative, 9.

(*b*) Chronic Bursitis.

Prepatellar, 19 (both sides, 1); semi-membranosus, 3; gluteal, 1.

(*c*) Tuberculous Bursitis.

Gluteal, 2.

(*d*) Acute and Suppurative Teno-synovitis.

(1) Acute.—Flexor tendons of wrist, 1.

(2) Suppurative.—Flexor tendons of wrist, 3; fingers, 2.

Fatal case.—Female, æt. 59. No previous illness or history of trauma. Three weeks' painful swelling of wrist, treated before admission by incisions. On admission the flexor sheaths were freely drained above and below the annular ligament. A pure culture of pneumococcus was grown from the pus. Later cultures from the wounds grew *Staphylococcus aureus* and a diphtheroid bacillus. Secondary erysipelas developed from the wounds, and death occurred from toxæmia. P.M.—Cloudy swelling of viscera.

(*e*) Tuberculous Teno-synovitis.

About ankle, 1; flexor carpi ulnaris tendon sheath, 1.

(*f*) Ganglion.

Foot, 1; thumb, 1; wrist, 1.

DISEASES OF THE OSSEOUS SYSTEM.

136. Periostitis.

(*a*) Acute.

Humerus, 1; femur, 1; tibia, 4.

(*b*) Chronic.

Simple, 2 (tibia, 1; os calcis, 1); gummatous, 2 (femur, 1; tibia, 1—treated with intra-venous salvarsan, 1); tuberculous, 1 (clavicle).

137. Acute Osteomyelitis.

Bones affected.—Rib, 1; humerus, 1; radius, 1; femur, 1; tibia, 8; os calcis, 1.

Infecting organisms.—*Staphylococcus aureus*, 8; *Staphylococcus albus*, 1; *B. Friedlander*, 1.

Developed pyæmic abscesses, 4 (1 recovered, 3 died); readmitted later for sequestrotomy, 1; treated with vaccine, 2; required arthrotomy of hip-joint, 1; of knee-joint, 1; of ankle, 1.

Case of interest.—*B. Friedlander* infection. *Female, æt.* 7. No previous illness. Acute osteomyelitis of left tibia. Multiple incisions and drainage performed. *B. Friedlander* present in pure culture. Four days later arthrotomy of left hip was required. Later sequestrotomy of the whole shaft of the tibia. The hip wound healed with no impairment of function of the joint.

Fatal cases.—Three males, 1 female.

(1) *Male, æt.* 6 weeks. Two days' history. Acute osteomyelitis of rib. Drainage (pus sterile). Developed pyæmic abscesses (*Staphylococcus aureus*) in subcutaneous tissues and also a large peri-renal abscess. P.M.—Multiple abscesses in right kidney.

(2) *Female, æt.* 17. One week swelling of thigh. Incision of sub-periosteal popliteal abscess (culture *Staphylococcus aureus*). Three days later signs of pericarditis and left pleurisy. Fourteen days after admission the pericardium was drained (culture, *Staphylococcus aureus*) and she was treated with stock vaccine. Temperature remained high and the patient died 37 days after admission, after developing signs of acute dilatation of the stomach. P.M.—Sixty-four ounces of purulent fluid present in left pleura, suppurative infarction of right lung, pericardium thickened and adherent to heart, valves healthy. Stomach and first and second parts of duodenum enormously dilated. Suppuration in shaft of femur.

(1) *Male, æt.* 9. Four days' swelling over heel and ankle. Profound toxæmia. Incisions made over os calcis. Death 3 days later. P.M.—Acute epiphysitis of of os calcis, both pleuræ inflamed, pyopericardium and suppurative myocarditis.

(4) *Male, æt.* 18. Three days' osteomyelitis of upper end of tibia and suppurative arthritis of knee-joint. Incisions over tibia and drainage of knee-joint (culture, *Staphylococcus aureus*). Profound toxæmia was present and pyæmic arthritis of left elbow developed. Amputation of thigh was performed, but death occurred from pyæmia. No P.M.

138. Osteitis.

Tibia, 1; metatarsal, 1; rarefying osteitis of vertebra, 1.

139. Caries.

(*a*) Caries of Spine.

Cervical, 1; cervical and dorsal, 1; dorsal, 20; dorso-lumbar, 1; lumbar, 10.

Abscess formation, 19 (lumbar, 8; psoas, 6; gluteal, 2; iliac, 2; ischio-rectal, 1).

Sinus, 1; readmitted with sinus, 2; also pathological dislocation of hip, 1; previous operations, 6; previous laminectomy, 1; treated by rest and support only, 11.

Compression paraplegia, 10—*for results of laminectomy see special table.*

(*b*) Bones of Trunk.

Sternum, 5; ischium, 2; sacrum, 1; rib, 1.

Also abscess of groin, 1; pelvic abscess, 1.

Fatal case.—Male, æt. 17. Amputation of hip for tuberculous disease in 1904. Admitted with sinuses and pelvic abscess. Died with amyloid disease (confirmed P.M.).

(*c*) Extremities.

Clavicle, 1; humerus, 1; carpus, 1; dactylitis, 6; tubercle of tibia, 1; fibula, 1; tarsus, 1; metatarsal, 2; os calcis, 2. Readmission, 1.

(*d*) Bones of Skull.

One case, caries of temporal bone exposing dura.

140. Necrosis.

(*a*) Bones of Extremities.

Phalanx, 6; femur, 6; tibia, 4; fibula, 1; astragalus, 1; tarsus, 1; metacarpal, 2.

Also arthritis of ankle, 1; readmitted, 2.

(*b*) Bones of Skull.

All cases of necrosis of superior maxilla.

Following fracture, 3; carious teeth, 4; syphilitic, 1.

141. Tumours of Bone.

(*a*) Simple Tumours.—Chondroma, 1; osteomata and exostoses, 12 (multiple, 1).

(*b*) Malignant Tumours.

(1) Myeloid Sarcoma.—Epulis, 2; superior maxilla, 1; mandible, 1; head of humerus, 1; os innominatum, 1; femur, 2. Refused operation, 1.

Fatal case.—Myeloid sarcoma with secondary growths.

Male, æt. 46. Seven months' right sciatic pain and pain on defæcation. On admission there was obvious right obturator wasting and a mass could be felt in the pelvis on rectal examination. Pain was uncontrollable, so that laminectomy with division of the posterior roots of all the lumbar and sacral roots was performed. This gave no relief and incomplete anæsthesia below the level of the divided roots followed. Death occurred 14 days after operation. P.M.—Mass of growth rising from os innominatum and filling the obturator foramen. The intra-pelvic portion compressed the iliac nerves. Secondary growths were scattered through the lungs. Microscopical examination of both primary and secondary growths showed typical myeloid sarcoma.

(2) Spindle and Round-celled Sarcoma.—Occipital bone, 1; orbit, 1; superior maxilla, 1 (inoperable); femur, 2; fibula, 1.

Case of interest.—Fibro-sarcoma of occipital bone. *Male, æt.* 22. No history of syphilis. Seven months' paroxysmal headache, first occipital, later generalised. Occasional vomiting and vertigo. Two months' failure of vision. Double optic neuritis, and increased knee-jerks with flexor plantar response were present. Wassermann reaction negative, von Pirquet positive. Operation, occipital exploration. A fibro-sarcomatous growth was found rising from the occipital bone and invading the dura, which was not opened. Secondary growth in the brain was suspected. Coley's fluid was given after operation. No improvement took place, and on discharge the right eye was quite blind, the left could only count fingers; gait reeling.

(3) Myxo-sarcoma.—Inferior maxilla, 1.

(4) Carcinoma.

Case of interest.—Male, æt. 59. Six months' swelling of right hallux. X ray showed complete destruction of terminal phalax. The toe was amputated and the growth found to be a spheroidal carcinoma. After operation painful swellings appeared along the tibia, showing rarefaction of the bone by X-ray. No primary carcinoma could be discovered and the patient was discharged.

142. Cysts and Osseous Diseases, Various.

(*a*) Cysts.—Dental, 4; dentigerous, 1.

(*b*) Various.—Excessive callus formation after fracture, 1.

Case of interest.—Osteitis deformans with sarcoma. *Female, æt.* 67. Ten years' pain and deformity of bones, 5 months' swelling in lower third of thigh. Typical changes of osteitis deformans present in skull, spine, and long bones, especially femora and tibiæ; marked kyphosis. Firm tumour in lower third of right femur, pushing forwards the suberural pouch of synovial membrane. Amputation through the middle third of the thigh was performed and the growth proved to be a chondro-sarcoma arising from the periosteum of a typical osteitis deformans bone. Patient was discharged, but died elsewhere later in the year, apparently from dissemination after local recurrence had taken place.

143. Affections of Amputation Stumps.

Painful stump, 3; ulceration of stump, 2; conical, 1.

DISEASES OF ARTICULATORY SYSTEM.

144. Shoulder.

(*a*) Tuberculous—Sinus, 3; abscess, 1; treatment by Bier's congestion, 1.

145. Elbow.

(*a*) Tuberculous—Re-admissions, 2; abscess, 1; also caries of ulna, 1; of metatarsal, 1.

(*b*) Fibro-cartilaginous loose body, 1.

146. Wrist and Carpal Joints.

(*a*) Tuberculous—With abscess, 1; treated by splints and tuberculin, 3.

147. Sacro-iliac.

Tuberculous—Re-admission, 1 (old tuberculous hip).

148. Hip.

(*a*) Tuberculous—Re-admissions, 9; with abscess, 11; with sinus, 10; ankylosis from old disease, 1; amyloid disease, 1. Developed measles, 1; diphtheria, 1.

Treated by extension or splints only, 18.

(*d*) Ankylosis—Traumatic, 2; old arthritis, 3; recurrent deformity after osteotomy, 2.

149. Knee.

(*a*) Tuberculous—Re-admissions, 10; with abscess, 2; with sinus, 2; also phthisis, 1; developed measles, 1.

Treated with rest and splints only, 18.

(*b*) Internal derangement:

(1) Detached internal semilunar cartilage—Circumferential detachment, 10; detachment or fracture of anterior horn, 7; transverse fracture, 4; no evident displacement, 6.

Treated by exercises only, 4; previous excision of external cartilage, 1; loose body present also, 1; operation followed by partial ankylosis due to adhesions, 1.

(2) Loose body—Cartilaginous, 3; fibrinous, 1.

(3) Thickened synovial fringe—Ligamentum mucosum, 5.

(*c*) Acute synovitis and arthritis—Acute synovitis, 3; traumatic, 5; suppurative, 3 (all streptococcal).

(*d*) Chronic synovitis and arthritis—Simple, 3; osteo-arthritic, 4; gummatous, 2.

(*e*) Ankylosis—Traumatic, 2; following sepsis, 1; with tuberculous hip, 1; following excision of knee, 1.

150. Ankle and Tarsus.

(*a*) Tuberculous—Re-admissions, 2; with abscess, 1.

(*b*) Acute arthritis—Infection with *Staphylococcus albus*, 1; with streptococcus, 1.

Fatal case.—Male, æt. 4 months. Acute arthritis of ankle; arthrotomy (fluid sterile). Died with broncho-pneumonia.

151. Joints, Various.

Ankylosis of jaw, 1 (re-admission); tuberculous arthritis of acromio-clavicular joint, 1; multiple acute arthritis (probably gouty), 1; syphilitic synovitis of knee and elbow, 1; infected gouty arthritis of hallux, 1; suppurative arthritis of finger, 1, of hallux, 1; osteo-arthritis of finger, 1, of thumb, 1.

DEFORMITIES.

152. Talipes.

Congenital, 6; due to infantile paralysis, 13; traumatic, 2; following tuberculous ankle, 1; cause uncertain, 3.

Variety—Varus, 3; equinus, 7; equino-varus, 3; equino-valgus, 2; valgus, 6.

Previous tendon grafting, 1; previous astragalectomy, 2; previous tenotomy, 2; treated with surgical boots or instruments only, 5.

153. Torticollis.

Congenital, 3; muscular, 2; spasmodic, 1. Refused operation, 1.

Fatal case.—Male, æt. 13. Torticollis since birth. Operation performed at another hospital when 6 months old. Very gross deformity was present. Operation, division of sterno-mastoid, scalenes, and deep fascia. Dense mass of fibrous tissue surrounded the internal jugular vein, which was cut during opera-

tion. Forceps were left on the vein to control hæmorrhage, and removed 5 days' later. On the following day uncontrollable hæmorrhage occurred from the wound, and the child died. P.M.—Mass of tissue in the neck looking like growth, but on section proving to be acute and chronic inflammatory tissue. An orifice was present in the carotid artery.

154. Genu Valgum.

Both sides, 3; adolescent type, 4; rachitic, 3; following tuberculous hip, 1. Re-admitted with fractured femur, 1; developed diphtheria, 1.

155. Cicatricial Contracture.

Following burns, 2; after excision of thyroglossal cyst, 1; traumatic contracture of palmar fascia, 1; following cut finger, 1.

156. Hammer Toes.

Both sides, 7; suppurating, 1. Index toe in all cases.

157. (*a*) Pes Cavus.

Congenital, 2; paralytic, 2; both sides, 3.

(*b*) Pes Planus.—Both sides, 7; previous operation of wiring, 1; also hammer-toe, 1.

(*c*) Hallux Valgus.—Both sides, 3; also hammer-toe, 1.

(*d*) Hallux Rigidus.—Both sides, 1; also hammer-toe, 1.

158. Various Deformities.

(*a*) Dupuytren's Contracture.—*Occupations.*—Tinsmith, 1; crane driver, 1; ship's steward, 1.

(*b*) Coxa Vara.—Both sides, 1; definite history of trauma, 2; treated by rest and extension only, 1.

(*c*) Infantile Paralysis of Legs.—Both sides, 3; developed erysipelas after amputation, 1.

(*d*) Ingrowing Toe-nail.—Both sides, 2.

(*e*) Unclassified.—Rachitic deformity of tibiæ, 4; deformity of toes, 3; birth palsy of upper limb, 1; deformity of nose, 1 (probably syphilitic); kyphosis, 1; scoliosis, 1.

MALFORMATIONS.

159. Hare Lip and Cleft Palate.

(*a*) Hare Lip.—Single incomplete, 3; single complete, 2; double, 3. Complicated by cleft palate, 8; necrosis of superior maxilla, 1; no operation owing to general condition, 4.

(*b*) Cleft Palate.—Previous suture of hare lip, 4; previous suture of palate, 5; no operation performed, 2.

160. Malformations of Head and Neck.

(*a*) Cervical Rib.—Re-admission, 1.

Symptoms.—Pain in all cases except 1, muscular weakness in 7, alteration of sensation in 3.

Condition found at operation.—Rib with true joint, 2; enlarged costal process without joint, 4; fibrous band only, 3.

In all cases except 1 the actual pressure was due to stretching of nerves over the fibrous band leading from the cervical rib or transverse process to the first rib. This band was found to become tense during inspiration.

(*c*) Unclassified.—*Fatal case.—Male, æt.* 10 hours. Seventh child; others healthy. Born with no external nares. Died asphyxiated. No P.M.

161. Malformations of Trunk.

(*a*) Imperforate Anus.—Also recto-urethral fistula, 1.

(*b*) Spina Bifida.—Occulta, 1; meningocele, 5; meningo-myelocele, 4; also sacro-coccygeal tumour, 1.

Fatal cases.—Meningocele, 1 (meningitis); meningo-myelocele, 3 (meningitis, 2; wasting, 1).

(*c*) Unclassified.—Hypospadias, 1; recto-urethral fistula, 1.

162. Malformations of Limbs.

(*a*) Congenital Dislocation of Hip.—Both sides, 1; also talipes and pes cavus, 1.

(*b*) Unclassified.—Congenital contracture of fingers, 1.

DISEASES OF AUDITORY SYSTEM.

163. Chronic Suppuration of Middle Ear and Mastoid.

With polyp formation, 7; re-admitted with sinus, 1; previous operation for acute mastoiditis, 6; for cerebral abscess, 1; post-operative facial weakness developed, 1.

164. Acute Mastoiditis.

(*a*) Without Intra-cranial Abscess.—Pus found at operation in lateral sinus groove, 8; developed erysipelas, 1; re-admitted with chronic mastoiditis, 1; pre-operative facial weakness, 2; post-operative facial weakness, 1.

Case of interest.—Pyæmia, recovery. *Female, æt.* 23. Otorrhœa 1 year; 3 weeks' acute pain over left mastoid, with rigors. At operation the lateral sinus was found to be thrombosed and the groove contained pus. Antrotomy was performed (exposing healthy dura) and the internal jugular vein was ligatured in the neck. Rigors continued daily after operation, and 16 days later a large empyema was drained on the left side. Another abscess formed in the buttock and was drained. Two months after admission an Estlander's operation was performed, removing six inches of three ribs, and after this the empyema sinus closed. Recovery.

Fatal cases.—Three males, 2 females.

(1) *Female, æt.* 51. Three months' otorrhœa, 10 days' acute symptoms. The antrum was opened and a sinus found which led backwards from the sinus groove. Death 4 days later. P.M.—Sinus thrombosis and basal meningitis.

(2) *Female, æt.* 10. Twelve months' otorrhœa, 2 days' pain and vomiting. Antrotomy performed, exposing thrombosed lateral sinus. Internal jugular vein

ligatured in neck. Rigors followed operation; a right empyema formed and was aspirated, and death took place 11 days after admission. No P.M.

(3) *Male, æt.* 14. Twelve months' otorrhœa; pain and drowsiness 1 week, "fit" before admission. Antrotomy performed and a thrombosed lateral sinus exposed. The internal jugular vein was ligatured in the neck. Rigors continued, and 3 days later a negative exploration of the brain was made. Patient died 14 days after admission. No P.M.

(4) *Male, æt.* 37. Admitted with history of otorrhœa and pain for 1 week. Treated with hot dressings, and discharged, apparently well, 4 days later. Four days afterwards he was readmitted with increasing coma. Antrotomy followed by a negative exploration of the cerebrum and cerebellum was performed, but death occurred on the next day. P.M.—General suppurative basal meningitis.

(5) *Male, æt.* 6 *months.* Five days' swelling over right mastoid. Antrotomy performed. Persistent pyrexia and vomiting followed. P.M.—Disease of both mastoids; no meningitis; right purulent pleurisy and pneumonia.

(*b*) With intra-cranial abscess—extra-dural abscess 3, cerebellar abscess 3, temporo-sphenoidal abscess 2.

Cases of interest.—(1) Cerebellar abscess. *Female, æt.* 11. Two months' otorrhœa, 3 days' vomiting and rigors. On January 18th antrotomy was performed. The sinus groove contained pus, but the sinus was not thrombosed. The internal jugular vein was ligatured in the neck. Rigors followed operation, and optic neuritis developed, so on January 30th the brain was explored and a large cerebellar abscess found and drained. On February 7th the lateral sinus was again explored and another cerebellar abscess drained. Patient recovered with a small hernia cerebri. She was re-admitted in May, with the hernia greatly increased in size. The protruding portion was cut away and an attempt made to suture the skin over it. This was unsuccessful and the hernia returned, and after a febrile attack suggesting local meningitis had subsided she was discharged, still having a large hernia cerebri.

(2) Temporo-sphenoidal abscess. *Female, æt.* 12. Eighteen months' otorrhœa on left side, 4 days' headache and vomiting. On admission she appeared somewhat dull mentally, pulse 60, no optic neuritis, right plantar reflex extensor. There was no tenderness or œdema over the mastoid. Two days after admission she developed well-marked word aphasia. The antrum was then explored and pus found to be coming through the tegmen tympani. This was opened up and a large temporo-sphenoidal abscess was drained. Culture from abscess grew *Staphylococcus aureus* and *proteus* group. Patient recovered, but a fair-sized hernia cerebri was present on discharge.

Fatal cases.—One male, 3 females.

(1) *Female, æt.* 23. Right otorrhœa many years, 2 days' acute pain. Antrotomy and ligature of internal jugular vein in the neck. The walls of the lateral sinus were covered with slough, and a collection of pus had formed between the tegmen and dura. Death 3 days later. P.M.—Extensive basal meningitis, thrombosis of lateral sinus, and an abscess cavity in the cerebellum.

(2) *Female, æt.* 5. No history obtainable. Large sub-periosteal abscess over right mastoid. Antrotomy performed exposing dura. On the 10th day after operation febrile illness commenced and the patient became rapidly worse. There were no localising symptoms, *nil* in fundi, *nil* in cerebro-spinal fluid. Death 8

days later. P.M.—Diffuse basal meningitis, loculated abscess cavity in right temporo-sphenoidal lobe of brain.

(3) *Female, æt.* 9. Admitted in October, 1910, with 3 days' history of headache. Right otorrhœa, well-marked nystagmus and opisthotonos. Antrotomy was performed. The symptoms persisted for some weeks and then subsided and the child got up. In November she was worse again, but once more improved. Recurrence of symptoms on December 12th, when well-marked optic neuritis was present. On December 20th a cerebellar abscess was drained through the antrum. On January 4th she developed right facial weakness and ptosis, and died 4 days later. P.M.—Abscesses in both lobes of cerebellum.

(4) *Male, æt.* 24. Right otorrhœa since childhood, 10 days' headache, 1 day acute pain. Admitted unconscious, right pupil dilated, nystagmus, left facial paralysis of supra-nuclear type, no optic neuritis, twitching of left leg. Antrotomy was performed and a large temporo-sphenoidal abscess drained through the tegmen. Death 2 days later. P.M.—The abscess had been drained, but subdural suppuration was present over the whole right hemisphere of the brain.

165. Auditory, Various.

(*a*) Acute otitis media—following influenza, 1; following operation for adenoids, 1.

(*b*) Unclassified—deafness 1 (treated by Eustachian catheter); foreign body in external meatus, 1; hernia cerebri following mastoiditis and cerebral abscess, 1; cerebral irritation following mastoiditis and cerebral abscess, 1; cyst of external meatus, 1; necrosis of petrous bone following excision of labyrinth and cochlea, 1.

166. Cerebral Hæmorrhage.

No P.M. on 3 of the 5 fatal cases.

G. G—, *male, æt.* 57. Brought in comatose. No hemiplegia. Died shortly after admission. P.M.—Large right capsular hæmorrhage which had ruptured into ventricles.

W. E—, *male, æt.* 45. Left hemiplegia following blow on head day before admission; left hemi-anæsthesia also. Lumbar puncture gave clear fluid with numerous small lymphocytes. Wassermann reaction negative in blood and cerebro-spinal fluid. Became comatose and died a week after admission. P.M.—Large clot beneath dura over left hemisphere. Advanced disease of basal arteries. Old clot in posterior end of left internal capsule. Three small hæmorrhages in pons. Granular kidneys.

E. H—, *male, æt.* 51. Brought up comatose, with left hemiplegia. P.M.—Large hæmorrhage in right internal capsule. Chronic interstitial nephritis.

167. (*a*) Cerebral Thrombosis.

The 2 cases which recovered were probably, and the 1 fatal case was certainly, syphilitic.

W. W—, *male, æt.* 29, had syphilis 7 years ago. Four weeks' headaches, insomnia, and dysarthria, followed by gradual loss of power in left leg. Drowsy and irritable; bilateral ptosis, more marked on right side; left hemiparesis; Babinski's sign on left side. Lymphocytosis and negative Wassermann reaction in cerebro-spinal fluid; positive reaction in blood. Treated by inunction and potassium iodide. One month after admission sudden abdominal pain with copious vomit

and signs of gastrectasis. Died in spite of treatment by lavage and eserine. P.M.—Thrombosis of right middle cerebral artery and corresponding cerebral softening. Numerous scars on liver and several recent gummata. Greater curve of stomach at level of iliac spines; duodenum also dilated. No cause for the dilatation found.

(*b*) Cerebral Embolism.—One case fatal; a *female, æt.* 31, brought up comatose, with a right hemiplegia. The heart-sounds are described as being normal, and she was treated by inunction. P.M.—Mitral stenosis; embolism in left middle cerebral artery.

168. Cerebral and Spinal Syphilis.

Twenty-seven cases, of which 18 were cerebral, 8 spinal and 1 cerebro-spinal; 7 cases were re-admissions. In 5 cases where a definite history of infection could be obtained the interval elapsing before onset on the present symptoms was 12 years, 6 years, 2 years (2 cases) and 6 months.

Examination of cerebro-spinal fluid.—Lymphocytosis in 2; no lymphocytosis in 5; globulin reaction in 5; Wassermann reaction positive in 1, negative in 5.

Blood.—Wassermann reaction positive in 10, negative in 5.

Treatment.—Twenty-two cases were treated by inunction combined with potassium iodide by the mouth; 4 cases in addition received salvarsan intra-venously; the results obtained in these cases were not more than would have been expected from inunction alone.

Cases of interest.

H. M—, *male, æt.* 30, was infected 6 months ago and had been treated by mercurial pills ever since; he was taking these pills at the time of onset of paraplegia with lumbar pains which occurred a week before admission. There was almost complete paraplegia with retention of urine. Wassermann reaction positive in blood, negative in cerebro-spinal fluid. Treated by inunction and salvarsan; Wassermann reaction in blood became negative 6 weeks after admission. Discharged with weak and spastic legs.

A. C.—, *female, æt.* 66: 16 years ago left hemiplegia and hemianæsthesia and left deafness. Ten years ago right hemiplegia and right deafness. Recently vertigo and fits. Paralysed both arms and legs; complete deafness; left hemianæsthesia. Syphilitic stricture of rectum. To add to her troubles she had a severe attack of biliary colic, followed by jaundice, while in hospital!

A. H—, *female, æt.* 33, had suffered from cyclitis and keratitis for two years, and received mercurial treatment in the Ophthalmic Department. The eyes improved, but her first child born seven months ago had congenital syphilis. Paraplegia developed gradually after the confinement. Wassermann reaction positive in blood. Lumbar puncture unsuccessful. Improved on inunction.

E. R. L—, *female, æt.* 1 *year and* 4 *months,* gave evidence of congenital syphilis soon after birth. Had never walked. Double Babinski. Wassermann reaction positive in blood, negative in cerebro-spinal fluid.

W. H—, *male, æt.* 49, had been attending us an out-patient for cerebral syphilis. Brought in comatose with right-sided convulsions. P.M.—Wassermann reaction on blood positive. Widespread arterio-sclerosis; extreme aortic atheroma and extensive disease of cerebral vessels.

169. Cerebral, Various.

(*c*) Encephalitis.—J. E—, *male, æt.* 5, admitted on account of incessant purposeless movements of head, trunk, and limbs which dated from an acute febrile illness 3 years ago. The movements affected practically all muscles, including those of eyes, face, tongue, and larynx. The child was incontinent and mentally defective. Cerebro-spinal fluid normal.

(*d*) Hydrocephalus.—Two cases, one fatal.

A. A—, *male, æt.* 1; probably consequent on post-basic meningitis. Wassermann reaction negative. Cerebro-spinal fluid normal.

K. P—, *female, æt.* 47; always subject to "bilious attacks," which have been more frequent lately; 6 weeks ago noticed to be forgetful and restless; during the past fortnight incessant vomiting and delirium. No changes in fundi. No localised weakness nor evidence of organic nervous disease apart from defective mental condition. Heavy cloud of albumen in urine. Lymphocytosis in cerebro-spinal fluid. Wassermann reaction negative (blood). Death after right occipital decompression. P.M.—Moderate, but definite, distension of all ventricles of the brain (no cause found for it). Pressure cone at foramen magnum. Extensive tuberculosis, fibrosis, and caseation apices of both lungs. No naked-eye changes in kidneys. Choroid plexus normal (microscopically).

170. Chorea.

Past history of rheumatism in 7. Evidence of valvular disease in 10.

Treatment.—Salicylates, 8; arsenic, 8; bromide, 2; hyoscine 1; chloretone tried in only one case and discontinued because it produced toxic symptoms in 3 days.

Complications.—Adenoids, 2; primary optic atrophy (unilateral) 1; endocarditis, 1.

Fatal case.—E. P—, *female, æt.* 20, described as always being of an emotional and excitable temperament; 4 brothers are epileptic. Was married 3 weeks ago, and chorea began 4 days later. Very violent and universal choreiform movements; delirious temperature, 102·4 on admission, 105·6 next day; death 4 days after admission. P.M.—Negative except for small vegetation on mitral valve and fatty change in liver.

171. Disseminate Sclerosis.

Wassermann reaction negative in 5. One case was treated with salvarsan (2 intra-venous injections of ·6 grm.); when seen 6 months later she was *in statu quo.* One case, a *male, æt.* 18, was admitted on the surgical side as a cerebellar tumour with a view to operation; he complained of three months' occipital headache, and morning vomiting. There was no optic neuritis, and the speech was quite typical of disseminate sclerosis. In another case, a *boy, æt.* 16, there was an abrupt onset of right hemiplegia a year after contraction of a sore on the penis. The Wassermann reaction was negative and there was nystagmus.

Fatal case.—A *female, æt.* 47. Three years' history; unable to stand; contractures of both legs. Both hips and knees acutely flexed. Double Babinski. Spastic arms. Difficulty in starting micturition. Fine nystagmus. Fundi normal. Wassermann reaction negative. A month after admission temperature suddenly rose to 105° F. and she became comatose and died. P.M.—Œdema of lungs. Chronic mixed nephritis. Patches of sclerosis in cervical and lumbar cord.

172. (*b*) Jacksonian Epilepsy.

Operation in one case, a *male*, *æt.* 39, who received a blow on the head in 1906; a week later fits began, and they have been frequent ever since; first conjugate, deviation of head and eyes to left, next, movements of left hand. Depression found on inner table of right parietal bone, with corresponding scar on dura, adherent to cortex.

173. Neurasthenia and Hysteria.

Neurasthenia, 12; traumatic neurasthenia, 5; functional spasms, 5; fits, 6; paraplegia, 3; anæsthesia, 2; tremor, 1; hemiplegia, 1; abdominal pain, 1; vomiting, 1; retention of urine, 1; aphonia, 1.

174. General Paresis.

Two cases were of the juvenile type. Wassermann reaction on blood positive in 4, negative in 1. Wassermann reaction on cerebro-spinal fluid positive in 1 and negative in 4 (all undoubted cases of general paralysis of the insane). Lymphocytosis in cerebro-spinal fluid present in 3, absent in 3. Noguchi's reaction positive in 2, negative in 2.

Fatal case.—Male, *æt.* 52, mentally queer since accident to head many years ago. Fit 8 years ago; admitted to this hospital then, and diagnosed as general paralysis of the insane. Another fit week before admission. Drowsy, irritable, bilateral third nerve palsy, pupils dilated and inactive. Treated with salvarsan and inunction. Died 3 weeks after admission. P.M.—Brain wasted; no pial adhesions, no "frosting." Cyst the diameter of a shilling in left cerebellar hemisphere. Slight Marchi change in cord, chiefly peripheral.

175. Hemiplegia.

One case, a *male*, *æt.* 48. Had a hemiplegia, probably of syphilitic origin, a year ago, and was re-admitted now for malnutrition.

Two were cases of infantile hemiplegia. In one of these the cerebro-spinal fluid was investigated, with negative results.

F. D—, *æt.* 1 *year and* 6 *months*, was admitted as meningitis. The cerebro-spinal fluid was under increased pressure (21 centimetres); this fluid was clear, sterile, contained no cells, and gave a negative Wassermann reaction. She was treated by intra-theeal injections of anti-meningococcal serum; the meningeal symptoms cleared up, but she was left with a left hemiplegia. This case was probably an instance of acute poliocncephalitis.

L. W—, *female*, *æt.* 5, had headache and vomiting 3 days and left-sided fits on the day of admission. Typical left-sided Jacksonian fits were observed subsequently. The cerebro-spinal fluid contained a few lymphocytes. There was double optic neuritis and left hemi-paresis, with Babinski's sign on the left. Six weeks after admission a right upper parietal osteoplastic flap was turned up; there was no obvious sub-dural tension and the dura was not opened. The child made a complete recovery, and a year later remained well. The Wassermann reaction was negative.

176. Acute Anterior Poliomyelitis.

All except 1 were recent cases, but none were admitted actually during the acute stage.

Distribution of residual paralysis: Both legs, 7; one leg, 1; one arm, 1 both legs and both arms, 1; both legs and one arm, 2.

177. Intra-cranial Tumour.

Site.—Cerebellum, 6; mid-brain, 3; frontal lobe, 1; temporo-sphenoidal lobe, 1; temporo-sphenoidal lobe and cerebellum, 1; pons, 1; multiple tumours, 1.

Variety.—Tuberculoma, 3; glioma, 2; sarcoma, 1; undetermined nature, 8.

Treatment.—Enucleation: 1 died, 1 recovered. Decompression: 1 died, 1 recovered. X rays after decompression: 1 died. Aspiration of lateral ventricle: 1 died.

Cases of interest.—S. W—, *male, æt.* 16. Never well since operation for cut tendons a year ago; nervous; sight failing; recently diplopia; little headache and no vomiting. Mentally rather stupid and emotional. Right eye deviates upwards and outwards. Neither eye can be elevated above horizontal plane, and there is no power of convergence. Slight nystagmus; accommodation normal. Fundi normal; visual fields normal. Bilateral extensor plantar response and slight inco-ordination of gait. No sensory defect. Diagnosed as mid-brain tumour.

E. C—, *female, æt.* 4. Three months' headache, vomiting and ataxia. Falls to left. No nystagmus. Sub-occipital decompression was done, and subsequently the left cerebellar hemisphere was explored; a small portion excised for microscopical examination was returned as "blood-clot and brain-tissue." The optic neuritis subsided, but the child was unable to walk without assistance on discharge.

G. C—, *female, æt.* 21. Ten days ago sudden onset of left hemiparesis with vomiting followed by coma. For some time previously she had had frontal headaches, but no vomiting. Mentally dull and apathetic. Pupils unequal and sluggish to light. Fundi normal; no power of upward movement of either eye. Left hemiparesis and bilateral extensor plantar response. Apical presystolic murmur and thrill. Diagnosed as mid-brain tumour.

S. M—, *female, æt.* 36.—Three months' occipital headache and vomiting. Very slight ataxy. Weakness of left sixth and seventh nerves. Double optic neuritis. No nystagmus. After suboccipital decompression the optic neuritis subsided (but was even then 4 D. in each eye).

J. W. C—, *male, æt.* 7.—Had been operated on six months for right cerebellar tumour when scattered nodules of growth were seen on the meninges. A gold tube was introduced into the subdural space and he was treated without success with X-rays. Drainage by the tube suddenly ceased; respirations stopped simultaneously. P.M.—Both cerebellar hemispheres encased with gliomatous growth; plaques of growth all over meninges.

P. W. H. S—, *male, æt.* 19. One month pain in left leg and left side of face. Seven days ago left hemiplegia. Comatose on admission. P.M.—Tuberculous mass 2 inches by 2½ inches in right temporo-sphenoidal lobe, invading right internal capsule.

B. H—, *male, æt.* 17.—Six months' occipital headache and failing sight. Double optic neuritis, more intense on the left side. Right internal rectus weak and coarse nystagmus to left. Left facial weakness. Tremor of left hand. No

inco-ordination. No sensory loss. Later on slight ataxy was observed, the tendency being to fall to the right. At 7 a.m one morning he had a very severe attack of pain and respirations ceased, the pulse remaining strong and regular. He was kept alive all day by artificial respiration, and at 3.30 p.m. the lateral ventricle was aspirated on the left side, apparently without any marked result. P.M.—Large soft tumour extending from right temporo-sphenoidal pole to occipital pole; similar tumour in right cerebellar hemisphere.

E. J—, *male, æt.* 13.—One month's history of dim vision, headache and vertigo, no vomiting. Tuberculoma the size of a pigeon's egg was enucleated from right lobe of cerebellum; remained semi-comatose after operation and died three weeks later. P.M.—Tumour incompletely removed; no other tumours; old-standing thrombosis of superior longitudinal sinus. Old tubercle both apices of lungs and recent miliary tubercles. Numerous tuberculous ulcers in intestines. This patient was admitted direct into the Surgical side.

E. W. N—, *male, æt.* 15.—Three months' mental alteration, occipital headache, vomiting and ataxy. Patient died of shock a few hours after occipital decompression operation. P.M.—Large sarcoma arising from right cerebellar medullary recess, filling fourth and invading third ventricle.

F. C—, *male, æt.* 31.—Three weeks difficulty in walking and writing with right deafness and facial weakness, all of acute onset. No optic neuritis; coarse lateral nystagmus; weakness of fifth, sixth, seventh, eighth, ninth and tenth nerves. No sensory defect. Ataxic to right. Died suddenly after a rigor. P.M. —Small neoplasm (the nature of which is not reported) 1 inch by ½ inch in the right side of the pons, invading the middle cerebellar peduncle. There was also an intense acute nephritis.

W. B—, *male, æt.* 40.—Five weeks' headache and vertigo with numbness in the right side of the face and right arm. Right hemiparesis with spasticity; weakness of left third and sixth nerves. Coarse nystagmus to right. Pupils almost inactive to light. No sensory defect. Double optic neuritis. He lost all power in the left arm and became comatose and died. P.M.—Large tumour, the upper part of which invaded the left crus, just failing to reach the third ventricle; the iter was surrounded by growth and the fourth ventricle was filled with growth. The tumour ended at the level of the calamus scriptorius. This tumour was a glioma.

J. D—, *male, æt.* 62. Six months' headache, vomiting and transient diplopia. Physical examination entirely negative apart from absence of abdominal reflexes. Subsequently a definite extensor response to Gordon's reflex was obtained on the left side, the plantar reflex remaining flexor. Death in coma. P.M.—Small cyst in left ascending frontal convolution. Small tumour in frontal pole of frontal lobe. Also very small nodules of growth (i) in anterior part of internal capsule, (ii) on under surface of right half of pons.

A. F. B—, *female, æt.* 30. Two years' headache and vomiting; 3 months' vertigo; 5 weeks' diplopia. She had been treated at another London hospital, where, after an exhaustive examination with bismuth and X rays, gastroptosis was diagnosed and a belt ordered! On admission here there was gross optic neuritis, and all the signs of a right cerebellar tumour. Respiration stopped suddenly and a hurried occipital decompression was performed, but without effect. P.M.— Extreme pressure-cone. Encapsuled tuberculoma in right cerebellar hemisphere.

178. Tuberculous Meningitis.

(See also under General Tuberculosis, 25.)

One case was discharged at parents' request; all the others were fatal. Lymphocytosis in cerebro-spinal fluid in 9; no lymphocytosis in 3; miliary tuberculosis of other viscera in 3; meningeal tuberculosis and caseous glands only in 6; meningeal tuberculosis with old pleural and peritoneal adhesions only in 1; no P.M. in 5.

Case Simulating Intra-Spinal Tumour.—F. C—, *male, æt.* 37, denied venereal disease; was "subject to fits" *æt.* 14–16; 18 months ago two and a half pints of fluid were removed from the right pleura and he had not been well since. Weakness of right arm (probably secondary to tuberculous elbow-joint) 1 year ago. Six months ago neuralgic pains in right thigh, with weakness of legs and difficulty in micturition. On admission, partial ankylosis of right elbow with muscular wasting. Spastic legs; bilateral extensor plantar response. Marked tactile anæsthesia L 3 to S 2 on right leg and slight defect L 5 and S 1 on left leg. Marked wasting of all muscles of right leg and a little wasting of left leg. Some trouble with micturition. No evidence of spinal caries. Cerebro-spinal fluid normal—no lymphocytosis, no globulin reaction and negative Wassermann reaction. Wassermann reaction also negative on blood. The question arose as to whether the right elbow-joint might be a trophic lesion, and syringomyelia was discussed as a possible solution of the problem. Eventually this lesion was regarded as almost certainly tuberculous, and the diagnosis seemed to rest between spinal syphilis, spinal caries, and intra-spinal tumour. A thorough course of anti-syphilitic treatment having proved ineffective operation was advised but refused, and the patient took his discharge. He was admitted three weeks later much worse—now unable to walk, with complete incontinence and a bedsore. While in hospital a large swelling appeared over the sacrum near the bedsore; this lump was thought to be a neoplasm. P.M.—Base of brain and whole cord, from end to end, encased in gelatinous material which proved to be tuberculous. There were scattered small caseous masses in the left cerebellar hemisphere. The cord itself was so completely invaded by tuberculous material that it was difficult to recognise any nervous elements in it at all. The lump over the sacrum was inflammatory.

179. Meningitis (Non-tuberculous).

Meningeal symptoms with normal cerebro-spinal fluid, 1 recovered; 2 died (no P.M.); post-basic meningitis with polymorphonuclear leucocytosis in cerebro-spinal fluid and meningococci, 2 died and 3 recovered (2 of these latter were treated by intra-thecal injections of anti-meningococcal serum); pneumococcal meningitis, 2 died; purulent meningitis (organism not determined), 1 died; ependymitis only, 1 died.

E. B—, *a female infant æt.* 10 *weeks*, had thrush, snuffles and a rash at birth, and meningeal symptoms 2 days. P.M.—The posterior two thirds of the interior of the right cerebral hemisphere was soft and yellow and there was a diffuse ependymitis.

G. D—, *female, æt.* 33, was admitted on the Surgical side with a history of 5 weeks' headache, vomiting, diplopia and weakness of the right leg. Double optic neuritis and weakness of the left seventh and right sixth nerve. Wasser-

mann reaction negative. Occipital decompression was performed, with temporary relief of symptoms. Death 6 weeks later. P.M.—Extensive basal lepto-meningitis with old-standing plaques of yellow pus in pia over cerebellum. No tumours. No evidence of tuberculosis or of ear disease.

180. Paraplegia.

Two cases were due to spinal caries; in one of these laminectomy was performed with unfavourable result, whereas the other, treated with rest only, improved. One case was probably due to neoplasm of the vertebræ. The nature of the remaining 6 cases was doubtful.

181. Neuralgia and Sciatica.

Trigeminal neuralgia, 11; brachial, 1; ilio-inguinal, 1; great auricular, 1; sciatica, 3.

Treatment.—Alcohol injections, 10; neurectomy, 3; Hartley-Krause operation, 1.

As to the results of alcohol injections it is difficult to speak, since most of them were discharged soon after injection. All the cases had either been previously injected, or had to receive another injection subsequently. The following were the intervals which elapsed between injections: 5 months (2 cases); 4 months (2 cases); 3 months and 13, 11, 6, 4 days (1 case each).

In 2 cases there was no result from the injection; in 1 a large hæmatoma formed after the injection, and in another keratitis with anæsthesia dolorosa ensued. One case had first division of the auricular-temporal and inferior dental nerves, followed by alcohol injection of the foramen ovale on 3 occasions, but with no relief, eventually excision of the Gasserian ganglion was resorted to with complete success. In another case after the unsuccessful attempts at alcohol injection the Hartley-Krause operation was performed; unfortunately there was no relief of pain, the patient became maniacal, and had to be sent to the infirmary.

182. Facial Palsy.

One case treated by hypoglosso-facial anastomosis, the distal end of the hypoglossal being anastomosed to the proximal end of the descendens-hypoglossi.

184. Tabes.

Wassermann reaction.—On cerebro-spinal fluid, positive in 1, negative in 3; on blood, positive in 2, negative in 4; lymphocytosis in cerebro-spinal fluid, present in 1, absent in 3; globulin reaction positive in 1, negative in 3.

Complications.—Charcot knee 6 (2 of these were aspirated and the fluid was found to be sterile; Charcot hip, 1; Charcot tarsus 1; gastric crises, 2; trophic ulcers, 2; acute nephritis, 1; peripheral neuritis, 1; aortic regurgitation, 1. Two cases were treated with salvarsan without definite result.

185. Various Nerve Diseases.

(*c*) Spinal Tumour.—Two cases, both treated surgically. In one, a *female æt.* 22, a vascular tumour was found in front of the filum terminale and cauda equina; some of this was scraped away with a spoon (but, microscopically, there was no evidence of tumour in the tissue sent for examination). The results of the operation were not gratifying; the wound suppurated and erysipelas set in, the flaccid paralysis of the legs was not improved, and anæsthesia and fresh trophic lesions appeared.

In the other case, a *female, æt.* 46, a sub-arachnoid fibroma was removed; it was posterior to the cord, at the level of the fourth dorsal vertebra. After operation there was considerable improvement in the motor power and sensation of the legs.

(*f*) Spinal Hæmorrhage.—A *boy, æt.* 14, had a fall the day before admission. He developed weakness of both legs with slight spasticity and double Babinski's sign. There was a band of hyperæsthesia round the chest and the cerebro-spinal fluid was blood-stained. No evidence of fracture. Complete recovery.

(*g*) Landry's Paralysis, *male, æt.* 31, died 1 hour after admission, and within 36 hours of onset. Complete flaccid paralysis below the neck, with absent reflexes; normal sensation and consciousness to the end. P.M.—Negative; tissues too degenerated for microscopy.

(*h*) Diffuse Myelitis.—*Male, æt.* 38; 8 days ago, after mild attack of "influenza," sudden loss of vision, first in right, next in left eye; also consecutive loss of power in left arm, left leg and right leg, with anæsthesia below nipples and incontinence. No headache, vomiting nor pyrexia. On admission, right fundus normal; in left eye 1 D. swelling of disc with numerous hæmorrhages along course of turgid retinal veins and visible moving thrombi in retinal arteries. Extreme sensory loss below nipples. Great loss of power of left arm and both legs. Subsequently one saw primary optic atrophy in the right eye and consecutive atrophy in the left. The sensory loss almost completely cleared up and there was a sufficient return of power in the legs to enable him to stand. Blood culture negative. Lumbar puncture was abortive.

INJURIES.

186. Injuries to the Head.

(*a*) Fractured Vault of Skull.

(2) Compound Fissured Fracture.—Developed erysipelas, 1.

Fatal cases.

(1) *Female, æt.* 54. Fissured fracture of right parietal and occipital bones. Admitted unconscious. Decompression operation on left side for subdural hæmorrhage (by *contre-coup*). Did not recover consciousness, although the compression was relieved somewhat for 3 days. P.M.—Laceration of left temporo-sphenoidal lobe of brain.

(2) *Male, æt.* ? 40. Compound transverse fracture of occiput. Admitted unconscious, pulse-rate 50; spinal puncture showed a pressure of 37 c.c. water, and 16 drms. of blood-stained fluid were withdrawn. Death 24 hours after admission. P.M.—Fracture as above, intra-dural hæmorrhage with laceration of right cerebral hemisphere.

(3) Depressed Fracture.

Case of interest.—Female, æt. 6. Admitted unconscious. Large hæmatoma present over right side of scalp and face. Spinal puncture showed an intra-thecal pressure of 29 c.c. of water and the cerebro-spinal fluid was blood-stained.

X ray showed depressed fracture of occiput. Headache and irritability were prominent symptoms for several days, and were relieved to some extent by spinal punctures. On recovery there was marked spasticity of arms and legs, which cleared up, leaving very definite ataxia. This was improving on discharge.

(*b*) Fractured Base of Skull.

Cases of interest.—(1) *Male, æt.* 34. Admitted unconscious, bleeding from left ear. Recovered consciousness, but cerebral irritation remained. Spinal puncture gave a pressure of 16 c.c. saline, and 1 drm. of blood-stained fluid was removed. One week after admission he developed symptoms of right cerebral compression of ingravescent type, *i. e.* left hemiplegia. The right Rolandic area was explored and subdural hæmorrhage with œdema of brain found. There was only slight improvement after this decompression operation, but on discharge two months later the hemiplegia was clearing up.

(2) *Male, æt.* 34. Fell head first into a pit. On admission, cut over right forehead, concussion. On recovery of consciousness it was found that he was completely blind in the right eye, presumably due to fracture of the sphenoid compressing the optic nerve. The consensual light reflex was present, and there were no other nerve-lesions. On discharge the right optic disc was pale.

Fatal cases.

(1) *Male, æt.* 59. Died from secondary erysipelas of scalp.

(2) *Male, æt.* 47. Fell backwards whilst at work. Admitted unconscious, no paralyses, no external signs of injury, urine contained ¾ albumen and epithelial casts, vomiting, pupils dilated. He developed right proptosis and died 12 hours after admission. P.M.—Fissured fracture of right temporal bone extending across middle fossa into sphenoidal sinus. No extra-dural hæmorrhage; some bruising of both temporal lobes of brain. Acute parenchymatous nephritis present.

(*c*) Fractured Base and Vault of Skull.

Six fatal cases.—Five cases showed cerebral laceration, 1 case died from shock due to the head injury complicated by multiple fractured ribs. In one case a primary hæmorrhage had occurred in the pons; in another case extra-dural hæmorrhage had occurred also from rupture of the middle meningeal artery.

(*d*) Fractured Jaw.

Readmission for sequestrotomy, 1; treated by dental splint, 2; plated, 1.

(*f*) Hæmatoma of Scalp.

Birth injury, 1; direct trauma, 2.

(*g*) Other Injuries.

Cut scalp, 7; cut tongue, 1; bullet in frontal bone, 1.

(*h*) Concussion.

Also fractured clavicle, 1; developed delirium tremens, 1; developed epileptiform fit followed by left arm weakness, 1; developed marked polyuria, 1.

Spinal puncture performed in 11 cases; decompression operation in one case.

Cases of interest.—(1) *Male, æt.* 16. Admitted in dazed condition, vomiting. Hæmatoma present over left temporal region, pulse 64–52, no paralyses. During recovery he developed a condition of word aphasia which lasted several days. Pressure in cerebro-spinal fluid was normal, and the fluid did not contain blood. Complete recovery.

(2) *Male, æt.* 11. Fell down, striking head. No loss of consciousness after

the accident, and the boy walked home and had his tea. One hour later he became drowsy and within a few minutes was unconscious. On admission, semi-conscious, pupils equal and inactive, knee-jerks exaggerated, pulse-rate 80. One hour later pulse-rate 48, deeply unconscious, no localising nervous signs present. Spinal puncture showed a subnormal intra-thecal pressure, fluid blood-stained. He slowly recovered consciousness after the spinal puncture, was quite rational though irritable on the following day, and completely recovered.

Spinal Puncture in Cases of Cranial Injury.

Nature of injury.	Pressure of cerebro-spinal fluid.	Presence of blood in fluid.	Amount of fluid with-drawn.	Effect on headache.
Concussion	Not taken	Absent	1 drm.	Not relieved.
,,	Sub-normal	,,	1 ,,	,,
,,	High	Present	2 ,,	Relieved.
,,	Not taken	Absent	1 ,,	,,
,,	Normal	,,	2 ,,	,,
,,	High	,,	4 ,,	,,
,,	Normal	Present	2 ,,	,,
,,	Very high	,,	3 ,,	,,
,,	Normal	,,	2 ,,	,,
,,	Very high	,,	?	,,
,,	Normal	,,	2 drm.	,,
,,	,,	Absent	3 ,,	Not relieved.
Fractured base of skull	,,	Present	1 ,,	,,
,, ,,	,,	,,	?	Relieved.
,, ,,	,,	,,	2 drm.	,,
,, ,,	Sub-normal	,,	1 ,,	,,
,, ,,	Not taken	,,	2 ,,	,,
Fractured occiput	High	,,	4 ,,	,,
,, ,,	,,	,,	16 ,,	Not relieved (died).

187. Injuries to the Neck.

All cases of suicidal cut throat. Air-passages opened in 3 cases; 1 case also had oxalic acid poisoning.

Fatal case.—Male, æt. 26. Pharynx opened through thyro-hyoid membrane. Low tracheotomy performed and suture of pharynx. Developed pharyngeal fistula, and 19 days after admission pneumonia of the right upper and middle lobes ensued, and proved fatal. P.M.—Local wound healed, septic pneumonia of whole of right lung and lower lobe of left lung.

188. Injuries of the Upper Limb.

(*a*) Fractures.

(1) Clavicle. Also fractured scapula and ribs, 1.

(2) Humerus. Surgical neck, 2; shaft, 2: supra-condylar, 7; separation of upper epiphysis, 1; of lower epiphysis, 4. Also Colles's fracture, 1; also fractured olecranon, 1; compound, 1; old-standing fracture of great tuberosity, 1. Treated by open operations, 7.

(3) Radius and ulna. Both bones, 5; Colles's fracture, 2; separation of lower radial epiphysis, 1; compound, 2.

Fatal case.—Cellulitis of arm. *Male, æt.* 49. Fracture of lower third of radius and ulna, not compound. He had become infected through a superficial wound, and was admitted with cellulitis of the forearm. Multiple incisions were made, but the patient died in a septicæmic condition on the day after admission. P.M.—Suppuration surrounding the fracture, cloudy swelling of viscera.

(4) Olecranon. Old-standing, 1; also fracture of femoral trochanter, 1. In 1 case, in which the bone was plated, suppuration followed by erysipelas occurred, and the limb finally required amputation.

(5) Bones of hand. Base of phalanx. 1; compound fracture of phalanx, 1; compound fracture of metacarpals, 1; also cut tendons, 1.

(*b*) Cut Tendons.

Old-standing, 2; also cut nerves, 3 (median, 1; ulnar, 2).

(*c*) Wounds and Crushes.

Cut muscles of forearm and ulnar nerve, 1; followed by traumatic aneurysm (digital), 1.

Fatal cases.

(1) *Female, æt.* 8. Extensive lacerated wound of arm. Death soon after admission from shock. P.M.—No other injuries.

(2) *Male, æt.* 34. Crushed wound of hand, hæmorrhage from palmar arch. The vessel was ligatured and the wound sutured. Developed acute emphysematous gangrene. Amputation performed through upper arm, but death occurred from toxæmia. P.M.—"Foaming liver" present.

(*d*) Various.

Case of interest.—Male, æt. 58. Traumatic myositis ossificans occurring after dislocation of elbow.

189. Injuries to Thorax.

Fractured ribs. Surgical emphysema in 5 cases.

Fatal cases.

(1) *Male, æt.* 43. Death from hæmothorax and respiratory failure.

(2) *Male, æt.* 43. Death from pneumonia.

(3) *Male, æt.* 5. Death from pyopneumothorax.

190. Injuries to Abdomen.

(*a*) Injuries to Intestines.

Case of interest.—Male, æt. 5½. Knocked down by horse. Symptoms developed 3 hours after accident. On admission abdominal rigidity and dulness in left flank. Immediate operation was performed. The peritoneum contained free blood, and a rupture of the mesentery with slight rupture of the ante-mesenteric border of the small intestine was found at about 3 ft. from the ileo-cæcal valve. Suture of bowel and mesentery. Dry sponging of peritoneum. Recovery.

(*b*) Injury to Spleen.

Cases of interest.—(1) *Female, æt.* 13. Run over by van. Admitted with abdominal rigidity and signs of internal hæmorrhage. Immediate laparotomy. Free blood in peritoneum, spleen pulped with extension of the rupture into the pedicle. Splenectomy performed. A blood-count 10 days later showed a moderate secondary anæmia and a leucocytosis of 19,380. Recovery.

(2) *Male, æt.* 12. Knocked down and fell on to side, pressing the elbow into the ribs. Admitted with signs of severe internal hæmorrhage. Immediate

laparotomy. Spleen found to be completely detached from the pedicle. It was removed, and the pedicle tied. Three weeks later the blood-count showed very little variation from the normal except for a moderate leucopenia (6380). Recovery.

(*c*) Perforating Wounds.

Three fatal cases.

(1) *Male, æt.* 14. Perforation of rectum. Fell off ladder on to a spike. Admitted 2 days later with symptoms of peritonitis which had commenced on the day following the injury. Under anæsthesia a perforation could be felt in the anterior wall of the rectum about 1½ in. above the prostate. Laparotomy revealed general peritonitis. It was impossible to suture the rent, so colostomy was performed. Death occurred 2 days after admission. P.M.—General peritonitis.

(2) *Male, æt.* 23. Multiple stab wounds in abdomen. Admitted with no symptoms of intestinal injury. On the day after admission the wounds were explored, and the small intestine found to be perforated in two places under an oblique wound in the abdominal muscles. No extravasation of fæces had occurred. The intestine and abdominal wounds were sutured. Later in the day the patient became collapsed. The wounds were opened up, and it was found that the intestine had burst through the stitches and become strangulated. Death occurred from shock. P.M. at coroner's court.

(3) *Male, æt.* 64. Revolver wound of abdomen. Admitted in collapsed condition. Tympanitic resonance over left side of abdomen. No operation was performed as the patient was moribund. P.M.—Perforating wound of stomach and transverse colon, with hæmorrhage into the root of the mesentery of the small intestine.

(*d*) Contusions.

Case of interest.—Traumatic lumbar hernia. *Male, æt.* 49. Struck by shaft of van. Swelling appeared in the left lumbar region immediately after the accident. Immediate operation. Lumbar muscles found to be completely ruptured and the peritoneum protruding. No injury to viscera. The muscles were sutured, but the wound suppurated, and the patient recovered with a lumbar hernia still present. Discharged with abdominal belt.

191. Injuries to the Genito-urinary System.

(*a*) Injuries to Kidney.—Contusion followed by hæmaturia, 3 cases.

Rupture of kidney 2 cases (1 recovered, 1 died).

Case I.—Recovered. *Female, æt.* 8. Run over by motor. Admitted in condition of severe shock, abdominal rigidity and dulness in right flank, pulse-rate 120, trace of blood in urine. Laparotomy was performed and an intra-peritoneal rupture of the right kidney involving the hilum was discovered. Nephrectomy and plugging of wound. One week later symptoms of peritonitis had developed and the wound was opened up. A fair quantity of fluid was found in the peritoneum. This was swabbed out and the wound closed. A culture of the fluid was sterile. Recovery.

Case 2.—*Fatal.—Male, æt* 63. Knocked down by taxi-cab. Admitted with hæmaturia and rigidity of the right flank. Cystoscopy showed blood-clot in the bladder. Laparotomy showed some blood in the peritoneum, the source of which

could not be found. A right lumbar exploration discovered the kidney to be pulped, and nephrectomy was performed. Death from shock. P.M.—Also small tear of liver, bruising of cæcum, and fracture of anterior fossa of skull without injury to brain.

(*b*) Rupture of Urethra.

All direct trauma. With no extravasation of urine, 2; with extravasation, 3,

(*c*) External Genitalia.

Wound of scrotum, 1; of perinæum, 1; traumatic rupture of female perinæum, 1; hæmatoma of scrotum, 1.

192. Injuries to Pelvis.

Fractured pubis, 1; fractured pubis and ilium, 1.

Fatal case.—Male, æt. 69. Admitted with hæmatoma of scrotum and penis. Also irreducible left inguinal hernia. Developed hypostatic pneumonia and died. P.M.—Separation of symphysis pubis with extra-peritoneal extravasation of blood in the pelvis. Also hypostatic pneumonia.

193. Injuries to Lower Extremities.

A. Fractures.

(1) Femur.—(*a*) Neck of Femur.—Intra-capsular, 2; extra-capsular, 5.

Result of treatment.—No shortening, 3; ½ inch shortening, 3; over ½ inch shortening, 1.

(*b*) Shaft of Femur.—Upper third, 9; middle third, 19; lower third, 9. Comminuted, 2; compound, 3. Also fracture of humerus, 1; of radius and ulna, 1; of patella, 1; also lacerated wound of leg, 1.

Treatment.—Plaster splints, 23; extension and long outside splint, 10; Hodgen's splint, 1; plated, 4.

Results of treatment.—Discharged in plaster, 21; no shortening, 6; under 1 inch shortening, 9; over 1 inch shortening, 1.

Cases of interest.—(1) *Male, æt.* 15. During last 3 years had broken both femora twice. No family history of similar condition. There were well-marked signs of rickets. Fracture through shaft of femur. X ray showed that both femora were curved, and an area of rarefaction was present at the site of fracture. Union occurred without shortening or deformity.

(2) *Male, æt.* 22. Compound fracture. Immediate lavage of wound followed by wiring the bones. Developed acute emphysematous gangrene, giving a culture of *B. aërogenes capsulatus*. Amputation at hip-joint on second day after admission. Stump suppurated and later required grafting. Recovery.

Fatal cases.

(1) *Male, æt.* 41. Spontaneous fracture in tabes. Well-marked physical signs of tabes, cystitis. Developed cellulitis of thigh in the region of the fracture soon after admission. Culture of a diphtheroid bacillus was grown. The cellulitis spread rapidly and the thigh was amputated in its upper third. Death from toxæmia. No P.M.

(2) *Male, æt.* 41. Fracture of shaft and both condyles of right femur, fracture of right tibia, and dislocation of superior tibio-fibular joint of left side. Death from shock soon after admission. P.M., no injury to viscera or cranium.

(2) Patella.

Direct violence, 3; rest indirect. Both sides, 1; vertical fracture, 1; re-fracture after wiring, 1. Open operation performed, 24; splints, 2.

(3) Tibia.

Shaft, 13; internal malleolus, 3; T-fracture of upper end, 1. Old-standing fracture, 2; compound, 2. Treated with plaster splints, 15.

(4) Fibula.

Shaft, 3; external malleolus, 4; compound, 1. Treated with plaster splints, 6.

(5) Tibia and Fibula.

(*a*) Simple.—Comminuted, 8; fracture of both malleoli, 3; readmitted for ununited fracture, 1. Treated with plaster splints, 46.

(*b*) Compound.—Old standing, 3; readmissions, 3.

Fatal cases.

(1) *Male, æt.* 50. Motor accident. Leg crushed and lacerated. Immediate amputation of leg at site of election. Stump suppurated, and acute emphysematous gangrene, due to *B. aërogenes capsulatus,* set in. Amputation in upper third of thigh. Death from toxæmia. P.M.—Fatty liver, nothing else abnormal.

(2) *Male, æt.* 48. Direct violence. Fracture of lower third of fibula and both malleoli. Wound irrigated and sutured. On third day developed acute emphysematous gangrene. Circular amputation of thigh performed, but death occurred on the same day. P.M.—Emphysema present all over body, gas in liver, kidneys and spleen. Also fractured ribs, and internal laceration of knee-joint.

(6) Pott's Fracture.

Compound, 1. Treated by open operation, 1; by plaster splints, 17; by Cline's splint, 3.

Case of interest.—Female, æt. 32. Compound Pott's fracture. Lavage and suture of wound, which, however, suppurated. Amputation at site of election. Developed erysipelas in the stump, followed by repeated attacks of erysipelas of arm with infection of the elbow-joint leading to ankylosis. Recovery.

(7) Other Fractures.

Os calcis, 1; metatarsals, 2; phalanx of hallux, 1.

b. Injuries to Muscles and Tendons.

Rupture of ligamentum patellæ, 1; rupture of quadriceps extensor tendon, 1 (on both sides).

c. Wounds and Crushes.

Fatal case.—Male, æt. 27. Run over by motor bus. Admitted with severe shock. Extensive lacerated wound of leg opening knee-joint. Amputation of thigh under spinal anæsthesia. Condition did not improve and laparotomy was performed on the suspicion of internal injury. *Nil* found. P.M. at coroner's court.

d. Foreign Bodies in Leg.

Bullet in leg, 3; needle in thigh, 1.

194. Injuries to the Back.

(*a*) Fractured Spine.—Axis, 1; dorsal lamina, 1; impacted fracture of bodies of vertebræ, 2 (cervical, 1; dorsal, 1); dislocation of lumbar vertebræ, 1.

Fatal cases.

(1) *Male, æt.* 36. History of epilepsy. Fell off a cart during a fit; was conscious afterwards, but became drowsy. On admission, no local signs of injury, but increasing pressure-symptoms came on. Pulse-rate dropped to 36, pupils pin-point, left internal strabismus, spastic paralysis of arms, flaccid paralysis of legs, retention of urine, and complete anæsthesia to the level of the chin. Spinal puncture gave blood-stained fluid. The patient lived for 5 days. Pulse rose to 68, no alteration of pressure-symptoms, increasing difficulty of respiration, with moist sounds audible all over the lungs. P.M.—Well-marked old-standing hydrocephalus present. Fractured spines of fourth to seventh cervical vertebræ, and comminuted fracture of centrum of sixth cervical vertebra. Diffuse bruising of lower cervical cord, with some extra-dural hæmorrhage. Œdema and congestion of lungs.

(2) *Female, æt.* 23. Knocked down by motor-car. Admitted unconscious, but soon regained consciousness. Both legs spastic, abdominal reflexes absent, no visceral symptoms, no respiratory distress, some stiffness of neck. Died on second day after admission. P.M.—Axis fractured into two halves between the upper and lower articular processes. No fracture of odontoid process. No bruising of the cord, but some extra-dural hæmorrhage.

195. Injuries to Joints.

(*a*) Dislocations.

(1) Clavicle. Acromio-clavicular joint, 1.

(2) Shoulder. Sub-coracoid, 3; sub-clavicular, 2; old standing, 3. Also fracture of anatomical neck of humerus, 1; of great tuberosity of humerus, 1.

(3) Elbow. Backward dislocation of radius and ulna, 1.

(4) Thumb. At metatarsal phalangeal joint in all cases. In 1 case forward dislocation of phalanx.

(5) Hip. Two cases of dorsal dislocation, reduced under anæsthetic.

(6) Other joints. Forward dislocation of radius with fractured ulna, 1; dislocation of phalanges, 2.

195. (*b*) Perforating Wounds and Foreign Bodies.

Perforating wound of knee-joint, 1; needle in knee, 3.

196. Injuries to Nerves.

Old-standing, 2; cut ulnar nerve, 1; cut median nerve, 2; traumatic ulnar paralysis, 1 (following injury to elbow); traumatic Erb's paralysis, 1 (following fall on to shoulder).

197. (*a*) Ununited Fractures.

Radius and ulna, 1; neck of femur, 2; tibia and fibula, 2; coccyx, 1. Re-admissions, 3. Treated by open operation, 6.

(*b*) Malunited Fractures.

Shaft of humerus, 1; supra-condylar of humerus, 1; radius and ulna, 2; Colles's fracture, 4; shaft of femur, 1; tibia and fibula, 1; Pott's fracture, 1; carpus, 1.

198. Scalds and Burns.

Developed nasal diphtheria, 1.

Fatal cases.—13 (shock, 11; toxæmia, 2).

REPORT OF MARY WARD.

There were 383 cases admitted to the ward during the year, and of these 364 were delivered, 19 were discharged undelivered.

139 were primigravidæ, 244 were multiparæ.

There were 286 cases of normal labour. Of these 265 were vertex presentations, L.O.A. 177, R.O.A. 73, R.O.P. 9 (4 unreduced), L.O.P. 6 (5 unreduced); 2 were face presentations, R.M.P. 1, L.M.P. 1; 8 were breech presentations, L.S.A. 3, R.S.A. 3, R.S.P. 2; 5 were twin pregnances; 6 were born before arrival in the labour ward.

392 children were born during the year.

Males.—163 mature,	13 of which were stillborn and	3	died.
10 premature, 2	„	„	4 „
Females.—191 mature, 14	„	„	1 „
8 premature, 1	„	„	2 „

Of the abnormal cases there were—

Eclampsia.—7 cases; 5, ante-partum, 2, post-partum. Of the former, 2 died, 2 recovered, and 1 was sent to the infirmary suffering from puerperal insanity. Of the latter, 1 died, 1 recovered.

Post-mortem examination of the 3 cases that died showed typical eclamptic changes in the liver and other organs.

(*See table on p.* 110.)

Albuminuria.—3 cases; all delivered in hospital. One normally, in the other 2 labour was induced. The former was discharged with the urine free from albumen, the two latter with a faint trace.

Pernicious Vomiting.—4 cases. None of these were at all severe. 2 were treated with rest in bed and a milk diet; 1 with gastric lavage, milk diet; 1 with saline *per rectum*.

Eclampsia.

Case.	Age.	Parity.	Urine.	Maturity.	Convulsions.	Treatment.	Result. M.	Result. C
1	19	Prim.	—	Full	Post-partum; 8 or 10 fits; not delivered in hospital; comatose on admission	Venesection and infusion. Jalap powder, chloral, āā 3ij, introduced by stomach tube; severe headache before commencement.	D.	G.
2	20	Prim.	Solid on boiling	32nd week	Ante-partum; 13 fits before delivery, 3 fits after; comatose on admission	Venesection 3x, infusion 3xv; os dilated by De Seigneux dilator. Head perforated and delivered. After delivery infused 3 times with saline Oiss but died 9 hours later.	D.	D.
3	29	Mult.	¾rds albumen on boiling	Full	Post-partum; 4 fits	Chloral gr. xxx, and pot. brom. gr. xv, mag. sulph., sod. sulph., āā 3ij, intravenous saline Oij, morphia hyp. mv. For a few days very irritable and had hallucinations but this soon cleared up.	G.	G.
4	23	Prim.	1 % Esbach	Full	Ante-partum; 3 fits	Morph. hyp. mxij in two doses. Hot-air bath. Labour induced with De Ribes' bag. Normal delivery. Four days later puerperal insanity. Headache and visual disturbances before commencement.	?	G.
5	37	Prim.	—	36th week	Ante-partum; 8 fits	Light $CHCl_3$ anæsthesia for 2½ hours, during which time first a toy bag was inserted and then a De Ribes' bag. Then delivery with forceps. Venesection 3viij. Infusion Oiss. Hot air bath.	D.	D.
6	33	Prim.	4 % Esbach	Full	Ante-partum; 4 fits	$CHCl_3$, venesection 3xij, infusion Oiiss, calomel gr. v, morphia hyp. mv, 4-hourly, 3 doses. Hot-air baths. Marked improvement 4 days later. Induction with toy bag, low forceps.	G.	D.
7	40	Mult., 4th conf.	Solid on boiling	20th week	Ante-partum; 20 fits	Cervix dilated with Hegar's dilators, leg brought down and child delivered. Venesection 3xij, infusion Oj, morph. hyp. mv. Eclampsia first two confinements.	G.	D.

The first three mentionod were discharged undelivered. The last had a slight accidental hæmorrhage. Delivery was completed with forceps, and the placenta, which was adherent, had to be removed by hand.

Placenta Prævia.—8 cases: 5, marginal; 3, lateral. One of the former was in a case of twins (binovular), the placenta of the second child being prævia. There was 1 maternal death from septicæmia. 6 of the children were born alive; the other 3 were stillborn.

Placenta Prævia.

Case and age.	Maturity.	Parity.	Variety.	Treatment.	Result. M.	Result. C.	Remarks.
1. 26	Full term	Multi.	Marginal	Ext. version; leg brought down	G.	D.	—
2. 25	,,	,,	Lateral	De Ribes' bag	G.	G.	—
3. 29	,,	,,	Marginal	Normal labour	G.	G.	—
4. 26	,,	,,	,,	Child lying transversely; leg brought down	G.	G.	—
5. 33	34th week	,,	,,	Membranes ruptured, tight binders	G.	G.	—
6. 37	Full term	,,	Lateral	De Ribes' bag. R.O.P. manual rotation and forceps	G.	G.	—
7. 38	27th week	,,	,,	De Ribes' bag; internal version; mother developed septicæmia; *B. coli* and diplococcus grown from uterus	D.	S.	—
8. 41	Full term	,,	Marginal	A case of twins, the placenta of 2nd child being prævia; rupture of 2nd bag of membranes: Ergot hyp. ɱx, liq. strych. hyd. ɱ iij, hypodermically	G.	G.	—

Accidental Hæmorrhage.—6 cases. All were mild cases. 4 were treated by rest in bed; 1 of these went out of hospital

before delivery; 2 had normal labours; and 1 had normal first and second stages of labour, but the third stage was complicated by post-partum hæmorrhage. The 1 other case had a De Ribes' bag inserted, and, when this was expelled, a leg of the fœtus (which was presenting by the breech) was brought down.

Post-partum Hæmorrhage.—6 cases: 1 previously mentioned; 3, vertex cases where forceps had been applied for delayed second stage; 1, normal delivery; 1, breech, with adherent placenta.

Contracted Pelvis.—10 cases: 3 were treated by Cæsarian section; 4, by induction of premature labour; 3, by high forceps. All the mothers did well. Two of the children were stillborn.

(*See table on p.* 113.)

Obstructed Labour.—32 cases:

(*a*) Delayed second stage, 21 cases. Treated by extraction, with forceps, 9 L.O.A.; 6 R.O.A.; 4 R.O.P. (2 delivered unreduced); 2 L.O.P. (both delivered unreduced). Two children stillborn; 1 died after delivery.

(*b*) Obstructed breech, 5 cases. 3, with extended legs: the legs were brought down and the head in each case delivered by jaw-shoulder traction; 1, obstruction caused by head, which was delivered by jaw-shoulder traction; 1, hydrocephalus treated by perforation of the after-coming head; 1 child stillborn.

(*c*) Locked twins, 1 case. Both fœtuses presented by the vertex, and the head of the second came down into the pelvis with the body of the first; it was replaced manually, and then both children easily delivered, the first being stillborn.

(*d*) Transverse, 4 cases. 3, were treated by internal podalic version and perforation of the after-coming head, the obstruction to the head in one case being caused by a retraction ring in the uterine muscle. One was in a case of twins; the second child being transverse, it was delivered by internal podalic version. 4 children stillborn.

(*e*) Impacted shoulders, 1 case. The patient had been in labour for 40 hours and the head born four and a half hours before admission to hospital. Both clavicles were cut through and then one arm and one leg amputated and the

Case and age.	Maturity.	Parity.	Measurements of pelvis.				Treatment.	Result. M.	Result. C.	Weight of child.	Length of child (inches).
			Intersp.	Interer.	Ext. conj.	Diag. conj.					
1. E. W—, 30	38th week	Mult.	9¾	10¼	—	4¼	Induction with toy bag and De Ribes' bag.	G.	G.	6 lb. 14 oz.	20
2. E. A—, 35	,,	,,	9	11	—	—	Ditto	G.	G.	,, ,,	20
3. C. W—, 32	Full term	,,	9¼	10¼	—	3¼	Cæsarian section	G.	G.	6 lb. 5 oz.	? 14
4. A. I—, 32	,,	,,	—	—	—	4½	High forceps. Was advised to come up for induction, but did not come till when in labour	G.	S.	8 lb.	—
5. M. H—, 24	,,	Prim.	9½	10	7½	4¼	Old case of hip disease. Induction with toy bag and De Ribes' bag. High forceps	G.	S.	—	—
6. H. H—, 23	38th week	Mult.	9¼	10½	—	Not felt	Induction with bougies; normal labour	G.	G.	7 lb. 6 oz.	18½
7. M. B—, 25	36th week	,,	8½	9¾	—	4¼	Induction with De Ribes' bag; normal labour	G.	G.	6 lb. 2 oz.	18
8. E. G—, 23	Full term	Prim.	9¼	10¼	—	3¼	Cæsarian section	G.	G.	5 lb. 13 oz.	18¾
9. S. C—, 27	,,	,,	10½	11¼	6¾	4, true conj. 3¼	Kyphotic pelvis; *nil*	G.	G.	5 lb. 2 oz.	18½
10. K. W—, 23	,,	,,	10	10½	7¼	4, true conj. 3½	High forceps	G.	G.	8 lb. 1 oz.	20

child delivered. The mother developed septicæmia within 24 hours of delivery. She was treated with serum with little result. On the tenth day of the puerperium she discharged herself from hospital and returned home. Five months later she returned to the hospital quite well and had a colpo-perineorrhaphy performed.

Pregnancy, Various.—28 cases.

(*a*) Cardiac disease and diseases of the lungs, 7: 3, mitral stenosis, 1 had a normal labour, 1 was delivered with forceps, and 1, a very severe case, who was treated with rest in bed for one month and in spite of this had two or three attacks of cardiac failure, was treated by Cæsarian section, spinal anæsthesia being used; she got over the operation well, but on the fifth day had another attack of cardiac failure and died (reported in 'Journal of Obstetrics,' 1911); 2 cases of phthisis: 1 advanced, treated by induction and delivery with forceps; 1 had a normal labour; 1 case of pneumonia, treated by manual dilatation and forceps but died; 1 pleursy, ? second stage completed by means of low forceps.

(*b*) Other diseases, 7: 1 acute rheumatism, normal labour; 1 tuberculous cystitis and pyelitis, child delivered with forceps, this patient died; 1 insomnia, induction with a toy bag, child delivered with forceps; 1 pain during pregnancy, induction with toy bag, normal labour; 1 glycosuria and neuritis, normal labour; 1 chronic Bright's disease, induction with toy bag and De Ribes' bag, child delivered with high forceps; 1 prolapse with pregnancy; the uterus was replaced and a ring put in, and as the cervix was in a dirty, ulcerated state douches were given; labour came on shortly afterwards and was normal, but during the puerperium the patient developed septicæmia but eventually recovered.

(*c*) Not delivered in hospital, 14: 6 not in labour; 1 pregnancy with alcoholism died undelivered when 6 months' pregnant; 1 mitral stenosis, rest; 2 abdominal pain, rest; 1 varicose veins, rest; 1 prolapse, ring inserted; 1 retroverted gravid uteris, natural reposition; 1 foreign bodies in uterus, uterus evacuated.

Ruptured Perinæum.—All cases of actual tears of the perinæum are included and all except one were sutured.

Primiparæ: incomplete tears, 12; complete tears, 3.

Multiparæ: incomplete tears, 9.

Two of the cases of incomplete tears broke down and were re-sutured in the Gynæcological Ward some months later.

Retained Membranes.—There were 4 cases where the placenta came away, leaving a part or the whole of the membranes behind. In all these cases they were removed manually; one case had slight post-partum hæmorrhage.

Maternal Morbidity.—The following figures are based on the ground that any case which shows a temperature of over 100° F. is morbid:

Cause.	Number of cases.
Septicæmia	2
Sapræmia	19
Gastro-intestinal	19
Mammary	11
Reactionary	22
Emotional	6
Urinary	3
Pulmonary	3
Various	8
Total	93

Giving a percentage of 24·2 of the total cases delivered in hospital as morbid.

Duration of the Temperature.

Days	1	2	3	4	5	6 or over.
No. of cases	57	12	6	5	4	9

Range of Temperature.

100°–101° F.	101°–102° F.	102°–103° F.	103° and over.
61	18	9	5

Table II.—*Surgical and Gynæcological Operations.*

Disease and Operation.	Result. Discld.	Result. Dtd.	Remarks.
General Diseases.			
Diphtheria—			
Tracheotomy	12	5	Previous intubation, 2.
Intubation	2	1	
Erysipelas—			
Incisions	12	...	
Pyæmia—			
Incisions	2	...	
Resection of rib	1	...	For empyema.
Craniotomy	1	...	For cerebral abscess.
Tetanus—			
Tracheotomy	...	1	Also laparotomy and heart massage.
Acute abscess—			
Drainage	92	1	Transperitoneal for perinephritic abscess, 1.
Incision, lavage, and suture	2	..	
Division of external anal sphincter	2	...	For ischio-rectal abscess.
Chronic abscess—			
Incision, evacuation and re-suture	60	...	
Incision and drainage	7	...	Also excision of rib, 1.
Excision and suture	3	...	
Cellulitis—			
Incisions	38	5	Also drainage of post-nephritic abscess, 1.
Grafting	1	...	
Amputation of arm	1	...	For gangrene.
Amputation of leg	1	...	For chronic ulcer.
Sinus—			
Curetting	8	...	Also drainage of abscess, 1.
Exploration	2	...	
Removal of wire from bone	3	...	
Nephrectomy	1	...	
Carbuncle—			
Excision	10	...	
Incision	1	...	
Skin graft	3	...	
Furuncle—			
Incisions	1	...	
Respiratory System.			
Diseases of the nose—			
Submucous resection of nasal septum	65	...	Also tonsillectomy, 8; curetting adenoids, 11.
Turbinectomy	29	...	Also tonsillectomy and curetting adenoids, 7.
Removal of nasal polypi	13	...	
Exploration of nasal sarcoma	1	...	
Curetting	1	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discha.	Died.	
RESPIRATORY SYSTEM—*continued.*			
Maxillary antrum and sinuses—			
Antrotomy and drainage	6	...	Also tubinectomy, 1.
Curetting frontal sinus	5	...	Also tubinectomy, 2; removal of nasal polypi, 2.
Excision of superior maxilla	1	...	For carcinoma.
Curetting antrum	1	...	For carcinoma.
Diseases of larynx—			
Tracheotomy	4	...	For carcinoma, 2; papilloma, 1; laryngitis, 1.
Intra-laryngeal removal of polypi	1	...	
Cauterisation	1	...	
Laryngectomy	1	1	For carcinoma. Also gastrostomy, 1.
Drainage of abscess	1	...	For perichondral abscess.
Empyema—			
Resection of rib, pleurotomy	34	5	Both sides, 1; subphrenic drainage also, 1.
Intercostal pleurotomy	4	...	
Thoracoplasty	3	...	
Pyo-pneumothorax—			
Resection of rib, pleurotomy	1	...	
Mediastinal sarcoma—			
Resection of rib, exploration	...	1	
Pulmonary abscess—			
Pneumotomy and drainage	...	1	
CIRCULATORY SYSTEM.			
Aneurysm—			
Ligature of innominate artery for subclavian aneurysm	1	...	
Wiring innominate aneurysm	...	1	
Ligature of femoral artery for popliteal aneurysm	1	...	
Ligature of ulnar artery for palmar aneurysm	1	...	
Excision of facial aneurysm	1	...	
Excision of cirsoid aneurysm	1	...	
Gangrene—			
Arterio-venous anastomosis	1	...	Later amputation lower third of leg.
Amputation of thigh	7	9	
Syme's amputation	1	...	
Amputation of toes	4	...	
Varicocele—			
Excision	34	...	Both sides, 2; circumcision also, 1; also excision of varicose veins, 2.
Excision with inversion of tunica vaginalis	20	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result. Disch'd.	Result. Died.	Remarks.
CIRCULATORY SYSTEM—*continued.*			
Varicose veins—			
Local excision	48	..	Both sides, 27.
Trendelenberg operation	6	...	Both sides, 2.
Trendelenberg operation and local excision	53	...	Both sides, 31; varicocele excised also, 4; also radical cure of hydrocele, 1; amputation of hammer-toe, 1; submucous resection of nasal reptum, 1.
Ligature of ruptured vein	1	...	
Incision for suppuration	1	...	
SKIN AND SUBCUTANEOUS.			
Cysts—			
Excision	8	...	
Incision	2	...	For suppurating sebaceous cysts.
Tumours—			
Lipoma excision	21	...	
Papilloma excision	5	...	
Fibroma excision	1	...	
Nævus excision	6	...	
Cautery of nævus	1	...	
Granuloma excision	1	...	
Endothelioma excision	4	...	
Alveolar sarcoma excision	2	...	Also excision of glands, 1.
Sarcoma excision	5	...	
Epithelioma excision	1	...	
Ulcers—			
Excision of simple ulcer	1	...	
Excision of tuberculous ulcer	2	...	
Excision of lupoid ulcer	1	...	
Excision of endotheliomatous ulcer	2	...	
Excision of rodent ulcer	4	...	
Curetting lupus	2	...	
Curetting tuberculous ulcer	1	...	
Amputation of leg	2	...	For chronic ulcer.
Skin graft	9	...	
Plastic skin operation	1	...	
DIGESTIVE SYSTEM.			
Mouth and pharynx—			
Curetting cancrum oris	1	...	
Papilloma of uvula excision	1	...	
Granuloma of gum excision	4	...	
Local excision of carcinoma	3	...	Floor of mouth, 1; uvula, 1; palate, 1.

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discha.	Died.	
DIGESTIVE SYSTEM—*continued.*			
Mouth and pharynx—*continued.*			
Excision of tongue and floor of mouth for carcinoma	3	...	Syme's method, 1; Kocher's method, 1; also excision of malignant glands, 4.
Sequestrotomy for necrosis	1	...	
Tracheotomy	1	1	For syphilitic stenosis of pharynx, 1; for carcinoma of pharynx and œsophagus, 1.
Tonsils and adenoids—			
Tonsillectomy	1	...	
Curetting adenoids	1	...	
Double operation	32	...	
Lips and tongue—			
Mucous cyst of lip excision	1	...	
Nævus of tongue excision	2	...	Also electrolysis, 1.
Papilloma of tongue excision	2	...	
Carcinoma of lip excision	5	...	
Partial excision of tongue for carcinoma	10	...	Preliminary laryngotomy, 1.
Total excision of tongue for carcinoma	6	2	Preliminary laryngotomy, 4; Syme's method, 1; intra-buccal, 10 (with splitting of cheek, 3) with removal of portion of jaw, 2.
Excision of malignant glands	16	2	
Œsophagus—			
Gastrostomy	11	5	One case fatal on readmission.
Stomach—			
(*a*) For ulcer—			
Posterior gastro-jejunostomy	7	...	
Anterior gastro-jejunostomy	1	...	
Excision of ulcer	...	1	
(*b*) For perforated ulcer—			
Suture of perforation	9	1	No drainage, 3; drainage, 7; later gastro-jejunostomy, 1.
Excision of ulcer	1	...	
Suture of ulcer and gastro-jejunostomy	1	1	
(*c*) For pyloric stenosis and dilated stomach—			
Posterior gastro-jejunostomy	18	2	Also appendicectomy, 1.
Gastropexy	...	1	
(*d*) For various affections—			
Drainage of perigastric abscess	2	...	Later gastro-jejunostomy, 1.
Gastrolysis	1	...	
Exploratory laparotomy	2	...	
Enlarging gastro-jejunostomy	1	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result. Discha.	Result. Died.	Remarks.
DIGESTIVE SYSTEM—*continued.*			
(*e*) For carcinoma—			
Posterior gastro-jejunostomy	9	1	
Partial excision	...	1	
Gastrostomy	1	...	
Jejunostomy	1	...	
Entero-enterostomy	...	1	For intestinal obstruction due to secondary growths.
Exploratory laparotomy	1	1	
Drainage of subphrenic abscess	...	1	
Duodenum—			
(*a*) Ulcer—			
Posterior gastro-jejunostomy	3	...	
(*b*) Perforated ulcer—			
Suture of perforation	7	6	Drainage, 7; no drainage, 6; later gastro-jejunostomy, 1.
Drainage of subphrenic abscess	...	1	
Hæmatemesis—			
Posterior gastro-jejunostomy	1	...	
Simple diseases of intestines—			
Cæcectomy and ileo-colostomy	1	..	For tuberculous ulceration of cæcum.
Laparotomy	...	1	For inflammation of ileum with peritonitis.
Carcinoma of intestines—			
Exploratory laparotomy	4	1	
Resection of growth	1	1	
"Short-circuit" anastomosis	3	...	
Colostomy	1	...	
Appendicitis—			
Appendicectomy	230	3	With drainage of peritoneum, 13; also salpingo-oöphorectomy, 5; radical cure of hernia, 3; cholecystostomy, 1; nephropexy, 2; orchidopexy, 1; excision of fibroma, 1.
Drainage of residual abscess	2	...	
Enterolysis for adhesions	3	...	
Appendicitis with local peritonitis—			
Appendicectomy	74	4	Drainage of peritoneum also in 65. Later laparotomy for peritonitis, 1.
Para-cæcal drainage only	1	...	
Drainage of residual abscess	4	...	By laparotomy, 2; *per rectum*, 2.
Exploration of subphrenic abscess	...	2	
Appendicitis with abscess formation—			
Drainage of abscess	62	6	
Secondary appendicectomy	33	...	

TABLE II—*continued.*

DISEASE AND OPERATION	Result. Dischd.	Result. Died.	Remarks.
DIGESTIVE SYSTEM—*continued.*			
Appendicitis with abscess formation—*continued.*			
Appendicectomy and drainage of abscess	9	...	Also ovariotomy, 1.
Drainage of residual abscess	8	...	
Appendicitis with general peritonitis—			
Appendicectomy	1	1	
Appendicectomy and drainage	32	16	
Drainage of residual abscess	2	...	
Laparotomy and drainage	...	7	Also ileostomy, 1.
Laparotomy for adhesions	1	...	
Ulcerative colitis—			
Cæcostomy	2	...	
Intestinal obstruction—			
(*a*) Simple—			
Laparotomy	2	...	For spasmodic obstruction.
Enterolysis	8	4	
Enterectomy and anastomosis	...	2	
Reduction of volvulus and enterectomy	1	1	
For intussusception—			
Laparotomy and reduction	17	6	Laparotomy and reduction for recurrence, 1.
Enterectomy	...	1	
(*b*) Carcinoma—			
Colostomy	6	7	
Cæcostomy	1	...	Later ileo-colostomy.
Secondary resection of growth and anastomosis	1	...	
Resection of growth and colostomy	...	1	Died after later ileo-sigmoidostomy
Primary ileo-sigmoidostomy	...	3	
Secondary ileo-sigmoidostomy	1	...	
Rectum and anus—			
For prolapse—			
Plastic operation	1	..	
Sacral incision and plug	1	...	
For fibrous stricture—			
Dilatation	1	...	
Exploration of sinus	1	..	
For polyp—			
Ligature and removal	2	...	
For carcinoma—			
Permanent colostomy	20	1	
Perineal excision	1	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discld.	Died.	
DIGESTIVE SYSTEM—*continued.*			
Rectum and anus—*continued.*			
For carcinoma—*continued.*			
Perinæo-vaginal excision	1	...	
Abdomino-perinæal excision	...	1	With complete colostomy.
Kraske's method of excision	4	2	Previous colostomy in 5, closed later in 2. With anal anastomosis, 3; with sacral anus, 2; with perinæal anus, 1.
Exploratory laparotomy	1	1	
For various affections—			
Excision of anal papillomata	2	...	Inguinal glands also excised, 1.
Plastic operation	1	...	For rectal incontinence.
Abdominal exploration	1	...	
Hæmorrhoids—			
Ligature and excision	63	...	Under spinal anæsthesia, 4; also excision of varicose veins, 1.
Partial Whitehead operation	22	...	
Complete Whitehead operation	2	...	
Incision of thrombosed hæmorrhoid	1	...	
Fissure *in ano*—			
Excision and suture	8	...	
Incision	7	...	
Stretching sphincter ani	1	...	
Fistula *in ano*—			
Track opened up	36	...	Under spinal anæsthesia, 6; also excision of polyp, 1; also ligature of hæmorrhoid, 1.
Track excised and sutured	3	...	
Abdominal pain and colic—			
Exploratory laparotomy	6	...	Also radical cure of hernia, 1.
Appendicectomy	2	...	Also nephropexy, 1.
Constipation—			
Exploratory laparotomy	1	...	
Cæco-sigmoidostomy	1	...	Also appendicectomy.
Dysentery—			
Colostomy	1	...	
Dyspepsia—			
Exploratory laparotomy	1	..	
Enlarging previous gastro-jejunostomy	1	...	
Visceroptosis—			
Exploratory laparotomy	2	...	
Gastro-duodenostomy and gastropexy	1	...	
Cholecystostomy	1	...	
Splenopexy	1	...	
Hepatopexy and nephropexy	...	1	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Dischd.	Dtcd.	
DIGESTIVE SYSTEM—*continued.*			
Various abdominal conditions—			
Laparotomy for carcinomatosis	6	...	
Laparotomy for sarcomatosis	...	2	
Laparotomy and drainage of epiploitis	1	...	
Drainage of subphrenic abscess	...	1	
Resection and axial anastomosis of transverse colon	1	...	For simple tumour of mesentery.
Removal of retroperitoneal cyst	1	...	
Laparotomy to explore pelvic tumour	1	...	
Trimming colostomy	1	...	
Excision of omental cysts	1	...	
Foreign bodies in intestinal tract—			
Œsophagotomy	1	...	For impacted tooth-plate.
Extraction of bone from rectum	1	...	
Salivary glands—			
Excision of submaxillary gland	1	...	For chronic inflammation.
Excision of retention cyst	3	...	Submaxillary, 2; sublingual, 1.
Plastic operation for salivary fistula	1	...	
Excision of parotid endothelioma	8	...	
Excision of carcinoma	2	...	Parotid, 1; submaxillary, 1.
Cirrhosis of liver—			
Omentopexy	1	...	
Cholelithiasis—			
Cholecystotomy and suture	1	...	Also appendicectomy, 1.
Cholecystotomy and drainage	20	1	Later cholecystectomy for sinus, 1; also appendicectomy, 2.
Cholecystectomy	7	1	
Also choledochotomy	9	...	With suture, 5; with drainage, 4.
Also duodeno-choledochotomy	1	...	
Choledochotomy and suture	1	...	
Duodeno-choledochotomy	1	...	
Abdominal exploration	1	...	
Cholecystitis—			
Cholecystotomy and drainage	14	...	Also appendicectomy, 2.
Cholecystectomy	2	...	
Also choledochotomy and drainage	1	...	
Cholecyst-enterostomy	1	...	
Closure of biliary fistula	1	...	
Appendicectomy	1	...	
Jaundice—			
Abdominal exploration and cholecystostomy	1	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result. Dischd.	Result. Died.	Remarks.
DIGESTIVE SYSTEM—*continued.*			
Pancreas—			
For acute pancreatitis—			
Laparotomy and drainage	1	...	
For carcinoma—			
Abdominal exploration	1	...	
Cholecystotomy and drainage	1	1	
Cholecyst-enterostomy	1	...	
Digestive glands, various—			
Excision of cyst of liver	1	...	Simple cyst.
Drainage of cyst of liver	3	...	Congenital cyst, 1; hydatid, 2.
Cholecyst-colostomy	1	...	For biliary fistula.
For carcinoma of gall-bladder—			
Exploratory laparotomy	3	1	
Drainage of abscess	...	1	
For carcinoma of liver—			
Exploratory laparotomy	2	...	
Tuberculous peritonitis—			
Laparotomy	5	1	
Enterolysis	1	...	Also appendicectomy.
Drainage of perigastric abscess	...	1	Later jejunostomy for gastric fistula.
Drainage of empyema	...	1	
Peritonitis—			
(*a*) Localised—			
Appendicectomy and drainage	1	...	
Laparotomy and drainage	1	...	
(*b*) General suppurative—			
Laparotomy and suture	...	1	
Laparotomy and drainage	4	6	Also appendicectomy, 4; also salpingectomy, 1.
Enterectomy for fæcal fistula	...	1	Following laparotomy.
HERNIA OPERATIONS.			
A. Inguinal hernia—			
Reducible, irreducible, and recurrent—			
Ligature of sac only	2	...	Under spinal anæsthesia, 42; also excision of varicocele, 8; also appendicectomy, 6; radical cure of hydrocele, 4; orchidopexy, 3; circumcision, 1; laparotomy for tuberculous peritonitis, 1; ligature of hæmorrhoids, 1; radical cure of epigastric hernia, 1.
Excision of sac and simple suture	129	2	
Foster's radical cure	267	...	
Bassini's radical cure	82	1	
Bloodgood's radical cure	4	...	
Kocher's radical cure	1	...	
Orchidectomy and suture of canal	6	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discld.	Died.	
HERNIA OPERATIONS—*continued.*			
Strangulated—			
Herniotomy and excision of sac	13	2	Under spinal anæsthesia, 7; also appendicectomy, 3; orchidectomy, 2.
Herniotomy and Foster's operation	14	...	
Herniotomy and Bassini's operation	2	...	
Herniotomy and radical cure by Roux's staple	1	...	
Resection of intestine and axial anastomosis	4	1	
Resection of intestine and lateral anastomosis	...	1	
B. Femoral hernia—			
Reducible, irreducible, and recurrent—			
Ligature of sac only . .	1	...	Under spinal anæsthesia, 9; also appendicectomy, 1; excision of fibroma of vulva, 1.
Excision of sac and simple suture	32	...	
Excision of sac only . .	3	...	
Radical cure by Battle's method	12	...	
Radical cure by Roux's staple	7	...	
Strangulated—			
Herniotomy and excision of sac with simple suture	23	1	Under spinal anæsthesia, 4; laparotomy also, 1.
Herniotomy and radical cure by Battle's method	...	1	
Resection of intestine and axial anastomosis	1	...	
Resection of intestine and lateral anastomosis	2	1	
C. Umbilical and ventral—			
Reducible, irreducible, and recurrent—			
Simple suture . . .	25	1	Also appendicectomy, 2; ovariotomy, 1.
Mayo's radical cure . .	22	...	
Radical cure with filigree .	1	...	Filigree removed later.
Resection of intestine . .	1	1	Fatal case—resection for volvulus.
Strangulated—			
Herniotomy and simple suture	4	2	
Herniotomy and Mayo's operation	3	2	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result. Discha.	Result. Died.	Remarks.
HERNIA OPERATIONS—*continued.*			
Strangulated—*continued.*			
Resection of colon	1	...	
Resection of small intestine	...	1	
D. Hernia, various—			
Herniotomy and resection of intestine with lateral anastomosis	...	1	For strangulated interstitial hernia of linea semilunaris.
LYMPHATIC SYSTEM.			
Simple enlargement of glands—			
Incision	12	1	Also tonsillectomy, 2.
Excision	5	...	
Tuberculous adenitis—			
Excision	51	...	
Incision and curetting	12	...	
Appendicectomy	1	...	Tuberculous abdominal glands.
Carcinomatous glands—			
Excision	3	...	
Incision and curetting	1	...	
Sarcoma of glands—			
Excision	5	...	
Tracheotomy	...	1	
Ductless Glands.			
Graves's disease—			
Ligature of superior thyroid arteries	6	3	
Partial thyroidectomy	2	...	Later nerve-grafting for recurrent laryngeal paralysis, 1.
Adenoma and cysts of thyroid—			
Enucleation	22	...	
Partial thyroidectomy	8	...	
Diffuse enlargement of thyroid—			
Division of thyroid isthmus	1	...	
Partial thyroidectomy	9	1	Previous ligature of superior thyroid artery, 1.
Carcinoma of thyroid—			
Local excision	1	...	
Partial thyroidectomy	1	...	
Tracheotomy	1	...	
Gastrostomy	1	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discha.	Died.	
GENITAL SYSTEM.			
Diseases of breast—			
A. Simple—			
Excision of adenoma	14	...	
Excision of cyst	3	...	
Partial resection of breast	5	...	
Amputation of breast	17	...	Axillary glands also removed, 2.
B. Malignant—			
Amputation of breast	3	...	
Amputation with dissection of axilla	50	1	
Amputation by Sampson-Handley's method	3	...	
Excision of recurrent growth	7	...	
Skin graft	6	...	
Undescended testis—			
Orchidopexy	14	...	Also radical cure of hernia, 11.
Replacement of testis into abdomen	6	...	
Orchidectomy	10	...	
Diseases of testis—			
A. Tuberculous—			
Incision, curetting, and suture	2	...	
Epididymectomy	2	...	
Orchidectomy	2	...	Also excision of inguinal glands, 1.
B. Syphilitic—			
Orchidectomy	2	...	
C. Chronic epididymitis—			
Epididymectomy	1	...	
Orchidectomy	1	...	
D. Cysts of epididymis—			
Excision of cysts	6	...	
E. Carcinoma of testis—			
Orchidectomy	3	...	Also excision of inguinal glands, 1; of lumbar glands, 1.
Tunica and processus vaginalis—			
A. Hydrocele—			
Excision	28	...	Also radical cure of hernia, 1.
Inversion of sac	8	...	
B. Hæmatocele—			
Incision, lavage, and suture	3	..	
URINARY SYSTEM.			
Nephroptosis—			
Nephropexy	12	..	Also appendicectomy, 2
Exploratory nephrotomy	1		

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discha.	Died.	
URINARY SYSTEM—*continued.*			
Nephroptosis—*cont.*			
Appendicectomy	1	...	
Renal calculus and colic—			
Nephro-lithotomy	16	1	
Nephrectomy later	1	...	
Exploratory nephrotomy	2	...	
Hydronephrosis—			
Nephrotomy and suture	1	...	Also nephropexy.
Plastic operation on ureter	...	1	
Nephrectomy	2	...	
Pyonephrosis—			
Nephrectomy	2	...	
Lumbar drainage	5	...	Later nephrectomy, 2; nephro-lithotomy, 1
Trans-peritoneal drainage	1	...	Later nephrectomy.
Kidney and ureter, various—			
(*a*) Ureteric calculus—			
Ureterotomy and drainage	1	...	
(*b*) Pyelitis—			
Exploratory nephrotomy	2	...	Also drainage of perinephric abscess, 1.
(*c*) Tuberculous nephritis—			
Nephrectomy	2	1	
(*d*) Cystic kidney—			
Nephrectomy	1	...	
(*e*) Malignant disease of kidney—			
Exploration	1	...	
Nephrectomy	1	...	
Acute nephritis—			
Nephrectomy	1	...	For suppurative nephritis, ? infarct.
Chronic nephritis—			
Cerebral decompression	...	1	For uræmia.
Vesical calculus—			
Supra-pubic lithotomy	6	1	With suture of bladder, 3; with drainage, 4.
Lithotrity	1	...	Also lateral sacral and iliac ureterotomy.
Diseases of bladder—			
Simple cystitis—			
Supra-pubic cystostomy	2	...	
Dilatation of female urethra	1	...	
Tuberculous cystitis—			
Supra-pubic cystostomy	...	1	
Papilloma—			
Supra-pubic excision	5	...	With suture of bladder, 1; with drainage, 4.
Carcinoma—			
Supra-pubic cystostomy	1	...	
Partial resection of bladder	1	...	
Various—			
Supra-pubic cystostomy	2	...	For atonic dilatation, 1; for cautery of submucous varix, 1.

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discld.	Died.	
URINARY SYSTEM—*continued.*			
Dilatation of bladder	1	...	
Diseases of prostate—			
Simple enlargement—			
Supra-pubic prostatectomy	11	1	One stage operation, 7; two stages, 5.
Partial prostatectomy	4	1	Also abdominal exploration for constipation, 1.
Supra-pubic cystostomy	2	6	
Closure of supra-pubic sinus	1	...	
Prostatic calculi—			
Supra-pubic cystostomy	...	1	
Carcinoma—			
Prostatectomy	1	...	
Supra-pubic cystostomy	3	...	
External genitalia—			
Circumcision	17	...	
Incision of paraphimosis	1	...	
Urethroscopy and cauterisation	2	...	For chronic urethritis.
Incision of periurethral abscess	2	...	
For impacted calculus in urethra—lithotrity	1	...	After reduction into bladder.
Extracted through meatus	1	...	
Stricture of urethra—			
Passage of sounds	35	2	
External urethrotomy	4	...	
Internal urethrotomy	4	...	
Cock's puncture	2	...	
Excision of stricture	1	...	Previous cystostomy.
Supra-pubic aspiration	4	1	
Supra-pubic cystostomy	2	1	
Incisions for extravasation of urine	4	2	
Incision of fistulæ	1	...	
Lumbar nephrotomy	...	1	For uræmia.
Urinary, various—			
Supra-pubic cystostomy	2	...	
Exploration of kidney	2	...	
Bursæ and tendon sheaths—			
Chronic bursitis excision	22	...	
Incision for suppurative bursitis	8	...	
Excision of tuberculous bursa	1	...	
Curetting tuberculous bursa	1	...	
Incision for suppurative teno-synovitis	4	1	
Curetting tuberculous teno-synovitis	1	...	
Excision of ganglion	3	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discha.	Died.	
OSSEOUS SYSTEM.			
Acute periostitis—			
Incision	6	...	
Chronic periostitis—			
Exploratory incision	1	...	
Sequestrotomy	1	...	
Acute osteomyelitis—			
Incision	8	4	
Sequestrotomy	5	1	
Amputation of thigh	1	1	
Arthrotomy and drainage	2	1	
Drainage of pyopericardium	...	1	
Caries—			
Evacuation of abscess and resuture	35	...	
Incision and drainage of abscess	4	...	
Curetting sinus	1	...	
Sequestrotomy	2	...	
Laminectomy	5	...	For compression paraplegia.
Excision of rib	1	...	
Amputation of finger	2	...	
Syme's amputation at ankle	1	...	
Necrosis—			
Drainage of abscess	8	...	
Sequestrotomy	17	...	
Incision for cellulitis	1	...	
Curetting sinus	2	...	
Amputation of finger	2	...	
Amputation through thigh	1	...	
Bone tumours—			
A. Simple tumours—			
Excision of exostosis	11	...	
Excision of chrondroma	1	...	
Amputation of finger	1	...	
B. Sarcoma—			
Partial excision of occipital bone	1	...	For fibro-sarcoma.
Excision of malar bone	1	...	
Partial excision of superior maxilla	2	...	
Exploratory incision and curetting	2	...	For myxo-sarcoma of lower jaw, 1; for myeloid sarcoma of lower jaw, 1.
Interscapulo-thoracic amputation	1	...	
Amputation at hip-joint	1	...	
Amputation through thigh	1	...	
Carden's amputation	1	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result. Dischd.	Died.	Remarks.
OSSEOUS SYSTEM—*continued.*			
Bone tumours—*continued.*			
B. Sarcoma—*continued.*			
Laminectomy and division of posterior nerve-roots	...	1	For pelvic sarcoma.
C. Carcinoma—			
Amputation of toe	1	...	For carcinomatous deposit.
Cysts of bone—			
Curetting dental cyst	4	...	
Curetting dentigerous cyst	1	...	
Affections of amputation stumps—			
Excision of nerve-end bulb	1	...	Also injection of alcohol.
Neurectomy	1	...	Also injection of alcohol.
Re-amputation	2	...	For conical stump, 1; for ulceration of stump, 1.
ARTICULATORY SYSTEM.			
Shoulder—			
Evacuation and re-suture of abscess	1	...	
Exploratory arthrotomy	1	...	
Excision for tuberculous disease	1	...	
Elbow—			
Excision	1	...	For tuberculous disease.
Evacuation and re-suture of abscess	2	...	
Removal of loose body	1	...	
Wrist—			
Incision, curetting, re-suture	1	...	
Excision	1	...	
Amputation at wrist	1	...	All for tuberculous disease.
Amputation of arm	1	...	For suppurative arthritis.
Sacro-iliac—			
Curetting sinus	1	...	
Evacuation and re-suture for tuberculous abscess	1	...	
Hip—			
A. Tuberculous disease—			
Incision, curetting, and re-suture	14	...	For abscess.
Arthrectomy	2	...	
Excision of joint	1	...	
Furneaux-Jordan amputation	1	...	
Sub-trochanteric osteotomy	3	...	
Tenotomy	1	...	
Drainage of pelvic abscess	...	1	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result. Dischd.	Result. Died.	Remarks.
ARTICULATORY SYSTEM—*continued.*			
Hip—*continued.*			
B. Chronic arthritis—			
Freeing sciatic nerve	1	...	For adhesions.
Aspiration of joint	1	...	
C. Ankylosis—			
Sub-trochanteric osteotomy	4	...	
Knee—			
A. Tuberculous disease—			
Evacuation of abscess	2	...	
Arthrotomy	1	...	
Arthrectomy	2	...	
Excision of joint	3	...	
Osteotomy of femur	1	...	For deformity following tuberculous disease.
Amputation through thigh	2	...	
Removal of wire	1	...	From old excision of joint.
B. Internal derangement—			
Excision of semilunar cartilage	28	...	
Removal of loose body	4	...	
Excision of synovial fringe	5	...	
C. Acute arthritis—			
Aspiration of joint	5	...	
Arthrotomy	3	...	
Amputation through thigh	1	...	
D. Chronic arthritis—			
Arthrectomy	1	..	For chronic synovitis.
Excision of joint	2	...	For osteo-arthritis.
E. Ankylosis—			
Excision of knee	1	...	
Ankle and tarsus—			
A. Tuberculous disease—			
Curetting	3	...	
Pirogoff's amputation	1	...	
Amputation through leg	2	...	
B. Acute arthritis—			
Arthrotomy	2	1	
Articulatory, various—			
Amputation of finger	1	...	
Amputation of hallux	1	...	
DEFORMITIES.			
Talipes—			
Wrenching under anæsthetic	6	...	
Tenotomy	6	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discld.	Died.	
DEFORMITIES—*continued.*			
Talipes—*continued.*			
Astragalectomy	2	...	
Partial tarsectomy	1	...	
Phelp's operation	1	...	
Tendon transplantation	1	...	
Arthrodesis of ankle	1	...	
Pirogoff's amputation	1	..	
Torticollis—			
Open myotomy	3	1	Also removal of tonsils, 1.
Genu valgum—			
Osteotomy of femur	9	...	Both sides, 2; also sub-trochanteric osteotomy, 1.
Cicatricial contracture—			
Plastic operation	2	...	
Excision of scar	1	...	
Excision of palmar fascia	1	...	
Amputation of toes	1	...	
Hammer-toes—			
Tenotomy	3	...	
Excision of head of phalanx	8	...	Both sides, 2.
Amputation of toe	12	...	Both sides, 4.
Pes cavus—			
Tenotomy	2	...	
Pes planus—			
Wrenching	3	...	
Pegging astragalo-scaphoid joint	1	...	
Removal of wires from feet	1	.	Previous tarsectomy and wiring.
Hallux valgus and rigidus—			
Excision of metatarso-phalangeal joint	6	...	
Removal of hypertrophic nail	1	...	
Excision of subcutaneous fibroma	1	...	
Dupuytren's contracture—			
Excision of plantar fascia	3	..	
Coxa vara—			
Tenotomy	1		
Exploration of hip-joint	1		
Infantile paralysis of legs—			
Arthrodesis of knee	3		
Amputation through thigh	1		
In-growing toe-nail—			
Plastic operation	2		
Excision of nail	6		
Various deformities—			
Tenotomy	2		For genu flexum, 1; for deformity of toes, 1.

TABLE II—*continued.*

DISEASE AND OPERATION.	Result. Discha.	Result. Died.	Remarks.
DEFORMITIES—*continued.*			
Various deformities—*continued.*			
Osteotomy of tibia	3	...	For rachitic deformity; also osteotomy of femur, 1; tibia plated, 1.
Amputation of toe	2	...	
MALFORMATIONS.			
Hare lip—			
Plastic operation	9	...	Rose's method, 8; Mirault's, 1.
Sequestrotomy	1	...	
Cleft palate—			
Closure by Langenbeck's method	4	...	Re-suture, 1.
Closure by flap operation	4	...	
Tonsillectomy	1	...	
Malformations of head and neck—			
Excision of cervical rib	9	...	Both sides, 1.
Excision of branchial cyst	2	...	
Excision of thyroglossal cyst	2	...	
Malformations of trunk—			
(*a*) For imperforate anus—			
Perinæal incision and suture	2	...	
(*b*) For spina bifida—			
Excision of sac	3	...	Meningocele, 2; meningo-myelocele, 1.
(*c*) Various—			
Plastic operation for hypospadias	1	...	
Cautery of recto-urethral fistula	1	...	
Malformations of limbs—			
Open reduction for congenital dislocation of hip	2	...	
AUDITORY SYSTEM.			
Chronic otitis media and mastoiditis—			
Antrotomy	2	...	
Complete mastoid operation	6	...	
Complete operation with grafting of cavity	50	...	Both sides, 1; also tonsillectomy, 2.
Grafting cavity	1	...	
Curetting sinus	2	..	
Acute mastoiditis—			
Antrotomy	41	5	Ligature of internal jugular vein also, 3.
Complete mastoid operation	2	...	
Complete operation and graft	1	...	
Grafting cavity	2	...	
Sequestrotomy	1	...	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Dischd.	Died.	
AUDITORY SYSTEM—*continued.*			
Mastoiditis with intra-cranial abscess—			
Antrotomy	...	2	Abscess discovered at necropsy.
Antrotomy and drainage of abscess—			
Extra-dural abscess . .	3	...	
Cerebellar abscess . . .	1	2	Also ligature of internal jugular vein, 2.
Temporo-sphenoidal . .	1	1	
Excision of cerebral hernia .	1	...	
Auditory, various—			
Incision for otitis externa . .	2	...	
Paracentesis for otitis media .	1	...	
Antrotomy	2	...	For mastoid sinus.
Curetting mastoid sinus . .	2	...	Also skin graft, 1.
Incision for mastoid abscess .	1	...	
Extraction of bead from external meatus	1	...	
Exploration of antrum . .	1	...	For cerebral irritation following cerebral abscess.
Sequestrotomy	1	...	Petrous bone.
Excision of cyst of external meatus	1	...	
Curetting hernia cerebri . .	1	...	
NERVOUS SYSTEM.			
Traumatic epilepsy—			
Craniotomy	1	...	
Hemiplegia—			
Exploratory craniotomy . .	1	...	
Intra-cranial tumour—			
Cerebellar decompression . .	2	1	
Enucleation of cerebellar tuberculoma	...	1	
Meningitis—			
Cerebellar decompression for basal meningitis	...	1	
Paraplegia—			
Laminectomy	1	.	For compression due to spinal caries.
Neuralgia—			
(*a*) For trigeminal neuralgia—			
Alcohol injection . . .	9	.	
Also neurectomy . . .	2	.	
Later excision of Gasserian ganglion	2	...	
(*b*) For neuralgia of ilio-inguinal nerve neurectomy	1	.	

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discha.	Died.	
NERVOUS SYSTEM—*continued.*			
Nervous system, various—			
Facio-hypoglossal anastomosis	1	...	For facial paralysis.
Decompression operation	...	1	For hydrocephalus.
Spinal tumour—			
Laminectomy and excision of tumour	2	...	
INJURIES.			
Injuries to the head—			
Suture of scalp	9	...	Also abdominal exploration, 1.
Grafting scalp	1	...	
Suture of tongue	1	...	
Exploration of cephal-hæmatoma	2	...	
Removal of bullet from frontal bone	1	...	
Decompression operation	2	3	For hæmorrhage, 4; for concussion, 1.
Sequestrotomy of jaw	1	...	
Plating fractured mandible	1	...	
Cut throat—			
Suture	7	1	
Tracheotomy	1	1	
Fractures of upper extremity—			
Open reduction of fractured humerus	5	...	Separation of upper epiphysis, 1; of lower epiphysis, 1; supra-condylar fracture, 3.
Plating humerus	2	...	Fractured surgical neck, 1; shaft, 1.
Open reduction for fractured radius	1	...	Separation of lower epiphysis.
Plating radius	1	...	
Plating radius and ulna	1	...	
Suture of periosteum of fractured olecranon	2	...	
Plating olecranon	1	...	
Wiring olecranon	2	...	
Pegging fractured base of phalanx	1	...	
Lavage and suture for compound fracture	2	...	Radius and ulna, 2.
Amputation of finger	1	...	For compound fracture.
Incisions for cellulitis	2	...	
Other injuries of upper extremity—			
Primary suture of cut tendons	10	...	Suture of nerves also, 1.
Secondary suture	4	...	
Suture of wounds	5	1	Also suture of ulnar nerve, 1.
Extraction of needle from hand	3	...	
Amputation of fingers	2	...	
Ligature of digital artery	1	...	For traumatic aneurysm.

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discha.	Died.	
INJURIES—*continued.*			
Other injuries of upper extremity—*continued.*			
Incisions for cellulitis	1	...	
Amputation through hand	1	...	
Amputation of forearm	1	1	
Injuries to the abdomen—			
Suture of intestine	1	1	
Colostomy	...	1	For perforating wound of rectum.
Splenectomy	2	...	For ruptured spleen.
Abdominal exploration	1	...	
Injuries to genito-urinary system—			
Nephrectomy	1	1	For ruptured kidney.
Perinæal incision and suture of ruptured urethra	3	...	
Tying in catheter for ruptured urethra	2	...	
Perineorrhaphy	1	...	For traumatic rupture of perinæum.
Fractures of lower limb—			
(*a*) Femur—			
Plating shaft	4	...	
Exploration of fracture	2	...	
Amputation through thigh	1	...	
Amputation at hip	...	1	
(*b*) Patella—			
Wiring fracture	24	...	
Plating	1	...	
(*c*) Simple fracture of tibia and fibula			
Plating	1	...	
(*d*) Compound fracture of tibia and fibula—			
Plating	1	...	
Lavage and suture	5	...	
Sequestrotomy	2	..	
Amputation through leg	1	...	
Amputation through thigh	1	2	
(*e*) Pott's fracture—			
Open fixation by screw	1	...	
Amputation at seat of election	1	.	
Various injuries to lower limbs—			
Suture of wounds	6	.	
Skin grafting	4		
Suture of ligamentum patellæ	1	...	
Wiring quadriceps extensor tendons	1	..	Wire removed later.

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Discha.	Died.	
INJURIES—*continued.*			
Various injuries to lower limbs—*continued.*			
Exploration of hæmatoma	1	...	
Exploratory laparotomy	...	1	
Extraction of foreign bodies	2	...	Needle in thigh, 1; bullet in leg, 1.
Amputation of toes	1	...	
Chopart's amputation	1	...	
Pirogoff's amputation	1	...	
Amputation through thigh	1	1	
Injuries to joints—			
(*a*) Dislocations—			
Excision of head of humerus	1	...	For dislocated shoulder.
Excision of neck of scapula	1	...	For dislocation of shoulder.
Open reduction of dislocated elbow	1	...	
Open reduction for dislocation of thumb	2	...	
Open reduction for dislocation of phalanx	2	...	
(*b*) Foreign bodies in joints—			
Extraction of needle from knee	3	...	
Injuries to nerves—			
Primary nerve suture	1	...	
Secondary nerve suture	1	...	
Exploration	2	...	
Ununited fractures—			
Plating	3	...	
Wiring	1	...	
Screwing neck of femur	1	...	
Excision of coccyx	1	...	
Mal-united fractures—			
Osteotomy	5	...	
Osteotomy and plating	2	...	
Re-fracture	2	...	
Excision of scaphoid	1	...	
Amputation of leg	1	...	
Scalds and burns—			
Incision of abscess	...	1	
Skin graft	1	...	
Unclassified—			
Incisions for whitlow	3	...	
Excision of lipoma	1	...	
Suture of hernial rings	2	...	
Excision of coccyx	1	...	For coccydynia.
Abdominal exploration	1	...	For functional vomiting.

TABLE II—*continued.*

DISEASE AND OPERATION.	Result. Discld.	Result. Died.	Remarks.
FEMALE GENITAL SYSTEM.			
For diseases of the ovary—			
Removal of the ovary . .	38	2	Simple cysts in 7; cystadenomata in 18; blood-cyst in 3; suppurating or inflamed cyst in 3; papillomatous cyst, 3; malignant, 3 (cyst only removed in these cases as secondary growths were present); dermoid cyst, 2; lutein cyst, 2; in 2 cases vermiform appendix also removed; 1 case both tubes removed for salpingitis; 1 case ventral fixation; 1 case ventral fixation and perineorrhaphy; 2 cases hysterectomy for fibroids.
Removal of both ovaries . .	6	...	1 for double cystadenoma, 2 for simple cysts, 1 for dermoid cyst, 2 for malignant disease (1 carcinoma, 1 chorion-epithelioma).
Exploratory laparotomy . .	2	...	For carcinoma; both were found with multiple secondary growths and inoperable.
For salpingitis—			
Removal of Fallopian tubes .	32	2	Removal of both tubes, 5; removal of both tubes and 1 ovary, 18; removal of both appendages, 9. In 4 cases hysterectomy was also performed, in 3 cases vermiform appendix removed, 2 cases ventral fixation, 1 case colpo-perineorrhaphy.
For pyosalpinx and tubo-ovarian abscess—			
Removal of Fallopian tubes .	30	2	Removal of both appendages, 11; removal of both tubes and 1 ovary, 13; removal of appendages of one side, 8; vermiform appendix removed in 4 cases; hysterectomy, 2 cases; ventral fixation, 1 case.
Colpotomy	1	...	
For hydrosalpinx	5	...	Removal of both tubes and 1 ovary, 3; both tubes, 1; 1 tube, 1; ventral fixation also in 3 cases.
For ectopic gestation . . .	16	1	Removal of appendages of one side, 10; removal of 1 tube, 5; removal of both tubes and 1 ovary, 1; removal of fœtus and sac, 1.
For menstrual disorders—			
Dilatation and curetting . .	83	...	44 for menorrhagia and metrorrhagia, 38 for dysmenorrhœa, 1 for amenorrhœa.
Abdominal hysterectomy . .	5	...	3 for menorrhagia, 2 for dysmenorrhœa.
Vaginal hysterectomy . .	3	..	For menorrhagia.
Utriculoplasty	1	...	For menorrhagia.

TABLE II—*continued.*

DISEASE AND OPERATION.	Result.		Remarks.
	Dischd.	Died.	
FEMALE GENITAL SYSTEM—*cont.*			
For incomplete abortion, etc.—			
Uterus evacuated	63	1	2 for hydatiform mole, 1 carneous mole, 60 retained products of conception.
For diseases of the body of the uterus—			
Dilatation and curetting	25	...	7 for adenomatous endometritis, 4 for senile endometritis, 3 for purulent endometritis, 4 for decidual endometritis, 6 for sterility, 1 for fibrotic uterus; 1 also had the left appendages removed for inflamed ovarian cyst.
Complete hysterectomy	22	3	18 for fibromyoma uteri, 5 for fibrotic uterus, 1 for carcinoma of the body of the uterus, 1 for gangrenous endometritis; 1 for mucous polypi, retroflexion and blood-cyst of ovary.
Supra-vaginal hysterectomy	27	1	27 for fibromyoma uteri; 1 for fibrotic uterus.
Vaginal hysterectomy	3	...	2 for fibrotic uterus; 1 for pyometra.
Myomectomy	2	...	Interstitial fibromyomata.
Enucleation	4	...	For submucous fibromyomata.
Removal of polypi	15	...	12 for fibroid polypi; 2 adenomatous polypi; 1 placental.
Exploratory	2	...	For abscess in uterine wall, puerperal in origin.
For diseases of the cervix—			
Complete hysterectomy	3	2	For carcinoma.
Wertheimer's operation	3	1	For carcinoma.
Supra-vaginal hysterectomy	1	...	For inoperable carcinoma with pregnancy.
Exploratory	2	...	Inoperable carcinoma.
Plastic	3	...	2 Emmet's operation; 1 amputation of cervix.
For pelvic cellulitis—			
Incision and drainage	3	...	Incised above Poupart's ligament.
Laparotomy and drainage	1	...	Combined with pelvic peritonitis.
For pelvic peritonitis—			
Incision and drainage	4	...	Incised through posterior fornix; 1 re-admitted with double pyosalpinx and abscess of ovary; removal of both tubes and ovary.
Laparotomy and drainage	10	...	3 had one or both tubes removed.
For diseases of vagina and vulva—			
Excision of new growths	7	...	4 urethral caruncle; 1 epithelioma; 1 soft fibroma; 1 papillomata.
Excision of Bartholin's gland	1	...	For cyst.
Incision and drainage	5	...	For abscess.

TABLE II—*continued.*

DISEASE AND OPERATION.	Result. Dischd.	Result. Died.	Remarks.
FEMALE GENITAL SYSTEM—*cont.*			
For diseases of vagina and vulva—*continued.*			
Incision of vaginal septum	2	...	For hæmatocolpos.
Various	3	...	1 varicose veins dissected out; 1 blood-cyst of vagina, excised; 1 hæmatoma of labia, clot evacuated.
Dilatation and curetting	5	...	For leucorrhœa.
For ruptured perinæum	15	...	12 complete rupture; 3 incomplete; 1 also had amputation.
For prolapse and displacements—			
Plastic operations	19	...	Colpo-perineorrhaphy in 18; Le Fort's 1; 5 also had amputation of cervix.
Ventral fixation	12	...	3 also had post colpo-perineorrhaphy; 2 amputation of cervix; 3 dilatation and curetting for menorrhagia; 1 appendicectomy; 1 utriculoplasty.

SPECIAL TABLES.

SPECIAL TABLE I.—*Statement of*

ABBREVIATIONS: I. = Indirect inguinal. F. = Femoral. U. = Umbilical. Fos. = Strang. = Strangulated. P.P. = Per primam.

Initials.	Occupation.	Age.	Sex.	Side.	Class of primary hernia.	Nature of radical cure.	Course of healing.	Interval since primary cure.
A. P.	Cook	17	M.	R.	Red. I.	Ligature of sac only	?	6 years
W. C.	Engine driver	54	M.	R. and L.	,,	Bass. with silk	P. P.	2 months
T. G.	Labourer	18	M.	R.	Strang. I	?	?	6 months
F. N.	Gardener	26	M.	R.	Red. I.	Bass. with silk	P. P.	2 years
G. L.	Motor fitter	40	M.	R.	,,	Fos. with catgut	,,	15 months
R. S.	—	13	M.	L.	,,	Ditto	,,	6 years
E. H.	Labourer	31	M.	R.	,,	Bass. with silk	,,	11 years
H. W.	Clerk	17	M.	L.	Red. I. and Undesc. Testis	Fos. with catgut, orchidopexy	,,	2 years
H. F.	Steward	21	M.	R.	Red. I.	Fos. with silk	,,	18 months
C. H. T.	Painter	46	M.	L.	,,	Fos. with catgut	,,	12 years
W. J.	Porter	62	M.	L.	Irred. I. ("en glissade")	Fos. with silk	,,	8 months
W. C.	Engine driver	54	M.	R. and L.	Recurr. I	Bass. with silk	,,	5 months
A. C.	Butler	46	M.	R. and L.	Red. I.	L. = ?. R. = Bass. with silk	,,	L. = 2 years; R. = 9 months
T. H.	Carman	44	M.	R.	,,	?	?	4 years
T. M.	Labourer	36	M.	R. and L.	,,	Fos. with silk	P. P.	2½ years

Recurrent Hernia. 29 *Cases.*

Foster's method. Bass. = Bassini's method. Red. = Reducible. Irred. = Irreducible. S. = Suppuration. R. = Right. L. = Left.

Nature of recurrent hernia.	Duration of recurrent hernia.	Nature of cure of recurrence.	Course of healing.	Remarks.
Red. R. I.	5 weeks	Bass. with silk	P. P.	First operation at Sidcup.
Red. R. and L. I.	1 month	„	Hæmatoma (L).	—
Red. I.	4 months	„	P. P.	First operation at Barry.
„	3 weeks	Bloodgood with silk	„	Also had L. Red. I. treated at first operation, non-recurrent.
„	3 months	Fos. with catgut	„	—
„	3 weeks	„	„	Also had R. Red. I. treated at first operation, non-recurrent.
„	7 months	Fos. with silk	„	—
„	2 months	„	S.	Also Red. I. (R.). Radical cure 6 months, non-recurrent.
„	14 months	„	P. P.	—
Strang. I	21 hours	Fos. with catgut	„	—
„	3 weeks, strang. 3 days	Roux's staple orchidectomy	S.	Incomplete sac present, with obstructed colon.
Red. I. (R. and L.)	5 months	Suture with silk, double orchidectomy	P. P.	Same case as (2).
Ditto	?	Bass. with silk (R. and L.)	„	L. side at London Hospital.
Red. I.	2 years	Bass. with silk	Hæmatoma	—
Red. I. (R.)	?	Kocher with silk	P. P.	R. sac. not found at first operation.

SPECIAL TABLE I.—

Initials.	Occupation.	Age.	Sex.	Side.	Class of primary hernia.	Nature of radical cure.	Course of healing.	Interval since primary cure.
A. M.	—	5	M.	R.	Strang. I.	Fos. with catgut	P. P.	4½ years
W. W.	Smith	28	M.	R.	Red. I.	Ditto	,,	14 years, 3 years
E. W.	Clerk	26	M.	R.	,,	Bass. with silk	,,	6 years
S. W.	Shoemaker	19	M.	L.	,,	?	?	2 years
G. W.	Carman	30	M.	R.	,,	?	?	3½ years
T. M.	Seaman	35	M.	R.	,,	Fos. with catgut	P. P.	3 years
F. T.	Enameller	30	M.	R.	,,	Bass. with silk	,,	12 years, 6 years
L. B.	—	14	F.	L.	,,	Excision of sac	,,	5 years
A. P.	Printer	22	M.	R.	,,	Fos. with silk	,,	2 months
T. P.	Porter	47	M.	R.	Red. I. (direct)	Bass. with silk	Sp.	14 months
B. F.	—	46	F.	R.	Red. Fem.	?	P. P.	6 months
S. M.	—	46	F.	—	Ventral	Suture with catgut	,,	5 years
G. M.	Labourer	38	M.	—	,,	Ditto	,,	3 months
E. Y.	Married	67	F.	—	,,	Vertical suture with silk	,,	10 years

continued.

Nature of recurrent hernia.	Duration of recurrent hernia.	Nature of cure of recurrence.	Course of healing.	Remarks.
Red. I.	Few weeks	Excision of sac	P. P.	—
,,	3 years	Plastic operation	,,	Three previous operations for recurrent hernia.
,,	14 days	Bass. with silk	,,	Primary hernia was of interstitial type; orchidopexy was also performed.
,,	2 years	,,	Died	Patient also had incisional abdominal hernia which was sutured. Death occurred 6 days later from intestinal obstruction due to volvulus.
,,	6 weeks	,,	P. P.	Primary cure at Tunbridge Wells.
,,	2 months	Fos. with catgut	,,	—
,,	15 months	Orchidectomy and suture	,,	Primary cure in India. 3 operations for recurrence 6 years ago.
,,	?	Excision of sac with suture of canal	,,	At primary operation the ovary was adherent to the sac. The same condition was present in the recurrence.
,,	2 months	Fos. with silk	,,	Recurred almost immediately.
,,	,,	Bass. with silk	,,	—
Red. Fem.	6 weeks	Excision of sac	,,	Primary operation at an infirmary.
Irred. ventral	4½ years	Mayo with catgut	,,	Mid-line incisional hernia.
Red. ventral	2 months	,,	,,	Primary hernia followed cholecystotomy.
Irred. ventral, strang. ventral	10 years, 12 hours	Mayo with silk	Sp.	—

SPECIAL TABLE II.

Inquiry into after-results of Gastro-jejunostomy.

The cases quoted in the following tables were with a few exceptions operated upon in 1910. In the majority of cases pyloric or duodenal obstruction was found at operation; those with no apparent obstruction are placed in a separate table.

The examination has been made to inquire into the clinical results of the operation, and also into the gastric motility following the anastomosis. By bismuth-X-ray examination it was readily seen in many cases that the bismuth commenced to leave the stomach almost immediately by way of the anastomosis. These cases showed a funnel-shaped shadow and early dissemination of the bismuth into the small intestine. In other cases the shadow took the shape of the great curve of the stomach, and it was then impossible to say whether the escape was by way of the pylorus or of the anastomosis.

Increase of motility was judged by the time in which bismuth appeared in the small intestine; dissemination in an hour or less was taken to signify increased motility. In all the cases in which motility was increased the clinical result was perfect, but it was noted that this increase of motility was shown less frequently with increased length of time since the operation. Of the cases with no increase of motility, some were cured, some relieved, and some unrelieved.

Total cases 43. Number examined 22. Unable to attend 12. Not traced 8. Died 1.

SPECIAL TABLE II.—

TABLE A.—*Cases with Pyloric*

ABBREVIATIONS: H. = Hæmatemesis. M. = Melæna. Post G.-J. = Posterior

Initials.	Age.	Sex.	History.	Operation.	Condition found.	History since operation.	
						General.	Pain.
A. K.	28	F.	Many years' indigestion with pain and vomiting, no H.	Post. G.-J.	Stomach dilated, cicatrised ulcer of lesser curve near pylorus	Good	No
A. C. M.	37	M.	2 years' pain and vomiting, one H., 2 years ago	,,	Old pyloric ulcer with stenosis	Relieved	Occasional
T. C.	42	M.	Post G.-J. for pyloric stenosis 3 years ago. Recurrent pain and vomiting one year	Ant. G.-J.	Fibrous cicatrisation about old opening	Good	,,
F. G.	46	M.	9 years' attacks of vomiting with H. and M.	Post. G.-J.	Cicatrised ulcer near pylorus	,,	,,
F. T.	34	M.	2½ years' pain and vomiting	,,	Scarring over duodenum	,,	No
F. C. J.	41	M.	3 years' vomiting, some H. and M.	,,	Dilated stomach, cicatrisation about pylorus	Poor	Occasional
S. Y.	56	M.	Many years' indigestion and 2 months' vomiting, no H. or M.	,,	Cicatrisation about pylorus	Good	No
J. D.	43	M.	2 years' pain and frequent vomiting, one H.	,,	Lesser sac adhesions, and cicatrisation of lesser curve	,,	,,
A. C.	34	M.	3 years' pain and occasional vomiting.	,,	Scarring over first part of duodenum	,,	,,
L. Z.	36	F.	Indigestion many years, pain and vomiting	,,	Large cicatrised mass about pylorus	,,	,,
F. K.	38	M.	8 months' pain and vomiting, visible gastric peristalsis	,,	Pyloric adhesions	,,	,,
J. C.	56	M.	22 years attacks of "gastritis" and H., occasional M.	,,	Scarring of lesser curve, adhesions about duodenum	,,	,,
D. F.	35	M.	10 years' pain and vomiting	,,	Hour-glass stomach (anastomosis to cardiac chamber)	,,	,,

ontinued.

or Duodenal Obstruction.

gastro-jejunostomy. Ant. G.-J. = Anterior gastro-jejunostomy.

History since operation.		Date of operation.	Date of examination.	Bismuth examination.	Remarks.
Vomiting.	H. or M.				
No	No	May, 1910	May, 1911	Could not attend	—
Occasional	,,	Dec., 1909	Feb., 1911	Great curve at level of intercristal plane; no change in 2 hours	—
No	,,	June, 1910	,,	Curve below umbilicus, all left stomach in 2 hours into small intestine	Present pain seems to be due to mucous colitis.
Occasional	,,	Dec., 1909	May, 1911	Could not attend	—
No	,,	Mar., 1910	Sept., 1911	No bismuth examination	—
Frequently	,,	Sept., 1910	Feb., 1911	Curve below intercristal plane, disseminated into small intestine in 2 hours	Patient says he has been relieved by operation.
No	,,	Oct., 1910	,,	Funnel-shaped shadow, disseminated into small intestine in $1\frac{3}{4}$ hours	—
,,	,,	Dec., 1910	Mar., 1911	Funnel-shaped shadow, disseminated into small intestine in $1\frac{1}{2}$ hours	—
,,	,,	Jan., 1910	Sept., 1911	No bismuth examination	—
,,	,,	Sept., 1910	Mar., 1911	Curve below intercristal line, no change in 2 hours	Patient appears to be in perfect health.
,,	,,	Oct., 1910	Sept., 1911	No bismuth examination	—
,,	,,	Mar., 1910	,,	No bismuth examination	—
,,	,,	Feb., 1910	Mar., 1911	Funnel-shaped shadow, nearly all in pelvis in $\frac{3}{4}$ hour	—

SPECIAL TABLE II.—

Initials.	Age.	Sex.	History.	Operation.	Condition found.	History since operation.	
						General.	Pain.
W. W.	31	M.	3 years' pain, no vomiting or H.	Post G.-J.	Cicatrised ulcer of lesser curve near pylorus	Good	No
S. S.	40	M.	16 years' pain and vomiting	,,	Ulceration of posterior wall, near pylorus	Poor	,,
H. F. W.	53	M.	2 years' gastric pain, two severe H.	,,	Adhesions about duodenum	Fair	,,
A. G. C.	42	M.	Many years' pain, no vomiting or H.	,,	Scarring of duodenum	Good	,,
G. O.	26	M.	5 years' pain and vomiting, no H. or M.	,,	Adhesions about duodenum and lesser curve	,,	,,
E. J.	41	F.	20 years' dyspepsia, no H. or M.	,,	Cicatrisation lesser curve near pylorus	Fair	,,
S. W.	29	M.	8 years' pain, 2 years' vomiting and M.	,,	Dilated stomach, cicatrised mass about pylorus and duodenum	Good	,,
C. P.	31	M	15 years' indigestion, 1 year pain and H.	,,	Cicatrisation of pylorus with marked obstruction	,,	,,
F. R. W.	35	M.	21 years' pain and occasional vomiting, visible peristalsis.	,,	Cicatrisation about pylorus	,,	,,
H. B.	38	M	3 months' pain after food, no vomiting or H.	,,	Adhesions and scarring about duodenum	,,	,,
M. C.	23	F.	19 years' pain and vomiting, 4 years' repeated H.	,,	Cicatrisation about pylorus	,,	,,
C. B.	38	M.	10 years' indigestion and frequent vomiting	,,	Pyloric obstruction	,,	,,
J. H.	58	M	3 years' pain after food	,,	Cicatricial mass about pylorus	,,	,,

TABLE A.—*continued.*

History since operation.		Date of operation.	Date of examination.	Bismuth examination.	Remarks.
Vomiting.	H. or M.				
No	No	Aug., 1910	Mar., 1911	Funnel-shaped shadow; bismuth dropped straight down to junction of left mid-Poupart and intercristal planes, no change in ¼ hour. Patient could not wait for further examination	—
,,	,,	May, 1910	,,	Curve below umbilicus, no change in 1½ hours	Patient has morning nausea; ? cirrhosis.
,,	One H. (slight)	Feb., 1910	Sept., 1911	No bismuth examination	—
,,	No	April, 1910	May, 1911	Curve below umbilicus, dissemination in small intestine in 2 hours	—
,,	,,	Mar., 1910	Sept., 1911	No bismuth examination	—
Yes	,,	April, 1910	,,	No examination	Entero-enterostomy for vicious circle 1 month after first operation. Patient unrelieved.
No	,,	Nov., 1910	May, 1911	Funnel-shaped shadow, all in small intestine in 2 hours	—
,,	,,	Mar., 1910	Sept., 1911	No examination	—
,,	,,	June, 1910	May, 1911	Curve 2 inches below umbilicus, in 2 hours mostly disseminated through small intestine	—
,,	,,	Dec., 1909	Sept., 1911	No examination	—
,,	,,	April, 1910	April, 1911	Curve below cristal plane, in 1½ hours disseminated through small intestine	—
,,	,,	Dec., 1909	Sept., 1911	No examination	—
,,	,,	Sept., 1911	Oct., 1911	Funnel-shaped shadow; bismuth commenced leaving stomach downwards and to left immediately; in 20 minutes over half had left stomach	—

SPECIAL TABLE II.—

Initials.	Age.	Sex.	History.	Operation.	Condition found.	History since operation.	
						General.	Pain.
M. S.	34	F.	10 years' indigestion, worse 2 years, with vomiting	Post G.-J.	Cicatrisation about pylorus	Fair	Yes
H. P.	50	M.	6 weeks' pain, 4 weeks' vomiting, about 2 hours after food. Loss of weight	,,	Thickening posterior wall of pylorus	Good	No
J. H.	59	M.	5 years' pain after food, melæna and vomiting	,,	Mass encircling lesser curve of stomach	,,	,,

TABLE B.—*Cases with no*

C. B.	41	M.	3½ years' pain and H., Post G.-J. in 1907. Relieved 3 months; recurrent melæna	Enlargement of old anastomosis	No ulceration found at first operation	Good	Occasional
J. H.	22	F.	6 years' pain, 3 H. and M	Post G.-J.	No evidence of ulceration	,,	No
H. H.	40	M.	Many years' indigestion, acute pain 6 hours.	Suture Post G.-J.	Perforated ulcer of anterior wall near pylorus	,,	Occasional
E. J.	32	F.	Many years, M. in 1902; 2 months' vomiting.	Post G.-J.	Dilated stomach, no cicatrisation or adhesions	Poor	Yes
M. F.	29	F.	Many years' indigestion; acute 9 hours	Suture Post G.-J.	Perforated ulcer of anterior wall near pylorus	Good	No

TABLE A.—*continued.*

History since operation.		Date of operation.	Date of examination.	Bismuth examination.	Remarks.
Vomiting.	H. or M.				
No	No	Nov., 1909	Nov., 1911	Great curve just below umbilicus; a considerable portion of the bismuth left the stomach immediately by an opening on the left side well above the level of the great curve. Examination an hour later showed part still in the pyloric portion of stomach; that portion which had passed through immediately was now in the pelvis, no more appeared to have left the stomach after the first few minutes	Patient was completely relieved for a year after operation. During the last year there has been increasing pain, apparently not in relation to food.
,,	,,	Sept., 1911	Oct., 1911	Bismuth left stomach immediately and passed to right	Gained 16 lb. after operation.
,,	,,	,,	,,	Bismuth began to leave immediately downwards and to the left	
apparent Pyloric Obstruction.					
Occasional	No	July, 1910	Sept., 1911	Bismuth in great curve at level of umbilicus, no change in 1 hour	—
No	,,	June, 1910	Mar., 1911	Curve just below umbilicus, no change in ¾ hour; could not wait for further examination	—
,,	,,	July, 1910	,,	Curve below umbilicus, all disseminated in small intestine in 1½ hours	—
,,	,,	Dec., 1910	May, 1911	Curve at intercristal plane, no change in 2 hours	Re-admitted in July, 1911, when anastomosis was enlarged; no relief.
,,	,,	Jan., 1910	Mar., 1911	Funnel-shaped shadow, appeared to pass into small intestine almost immediately	—

SPECIAL TABLE III.—*Cases of Im-*

Total cases = 37. Died in hospital = 20 (peritonitis 2, shock 5, after
be traced, and 5

Initials.	Date of operation.	Condition found.	Nature of operation.	History since operation.
				Control.
F. K.	1902	Septum only	Perinæal incision and suture	Perfect
G. N.	1904	Bowel 1½ in. from perinæum, recto-urethral fistula	Ditto	No control, but no action of bowels without knowledge
T. L.	1910	Bowel 2 in. from perinæum	Ditto	Until death, perfect
G. C.	1902	Bowel at sacral promontory	Laparotomy, perinæal colostomy	—
E. C.	1904	Perinæal incision and suture		—
L. F.	1904	?	Left iliac colostomy (performed outside). Admitted in 1906. Perinæal incision and suture. Re-admitted 1907. Attempted closure of colostomy	—
F. B.	1904	Bowel at sacral promontory	Laparotomy, perinæal colostomy	

perforate Anus, 1900–1910 (*inclusive*).

laparotomy or colostomy 13). Discharged = 17 (of these cases 10 cannot have since died).

History since operation.			Remarks.
Straining.	Pain.	Constipation.	
No	No	No	Dilatation continued for 12 months. Health excellent.
Yes	,,	Often	Readmitted for dilatation of stricture æt. 6 weeks. Still passes flatus *per urethram*, and urine by anus. General health excellent, no bacilluria.
No	,,	No	Died æt. 9 months with measles and pneumonia.
—	—	—	Died æt. 4 months with intestinal obstruction, after developing fistula into urinary tract.
—	—	—	Died æt. 12 months. No details obtained.
—	—	—	Died with peritonitis after closure of colostomy.
—	—	—	Died æt. 2 months from "wasting."

SPECIAL TABLE IV.—*Laminectomy*

Name.	Age.	Sex.	History.	Spasticity.	Reflexes.	Sensation.
A. E.	8½	F.	Caries 6 years, pressure symptoms some months	Very great	K.-Js. + +, Babinski R. and L.	No impairment
H. S.	32	M.	Girdle pain 6 months, paraplegia 1 month	Present, worse L. side	K.-Js. +, Babinski R. and L.	Tactile normal, pain sense altered below spine of twelfth dorsal vertebra
J. B.	25	M.	Caries 14 years, 5 years paraplegia, which improved in 2 years, 6 months recurrence	Present	,,	Normal
T. B.	13	M.	Caries 2 years, increasing paraplegia 3 months	,,	,,	Impaired tactile sensation below lesion
J. A.	10	M.	Bone pain 6 months, paraplegia 14 days. Became worse whilst in hospital	,,	K.-Js. + +, Babinski R. and L.	Zone of hyperæsthesia at nipple level, some tactile defect over abdomen

for Spinal Caries with Paraplegia.

Visceral control.	Condition found at operation.	Condition after operation.	Condition on discharge.
Normal	Dorsal caries, cavity in body of vertebra with abscess displacing cord backwards. Pulsation in cord returned after evacuating abscess	Spasticity became worse, and uncontrollable twitching of the legs occurred	Spasticity much less, still exaggerated knee-jerks and Babinski sign. Visceral control normal.
Retention of urine, rectal control normal	Dorsal caries, granulation-tissue present over theca	Severe shock, retention of urine, cystitis and rigors occurred, spasticity became worse	Discharged to infirmary, more spastic than before operation, still retention of urine and cystitis.
Precipitate micturition	Dorsal caries, extra-dural abscess on right side of cord	Increased spasticity and incontinence of urine for 2 days	Much improved, could walk some distance; no visceral symptoms, still some pain in back.
Incontinence of urine, rectal control normal	Dorsal caries, extra-thecal abscess with cavity in centrum of vertebra	Complete anæsthesia below lesion, retention of urine and incontinence of fæces	Spasticity unaltered, some return of sensation, still complete incontinence of urine and fæces.
Incontinence of urine and fæces	Caries of sixth dorsal vertebra, extra-dural pus surrounding cord at this level	Increased weakness and spasticity	Some improvement, but spastic paraplegia still marked on discharge.

REPORT OF

THE OUT-PATIENT OBSTETRICAL DEPARTMENT FOR 1911.

By J. P. HEDLEY, M.A., M.B., M.C.Cantab.,
obstetric physician with charge of out-patients.

The Junior Obstetric House-Physicians for the year were Messrs. H. Bowring, B. C. Maybury, N. F. Lock, E. A. Seymour, and E. M. Lauderdale.

The statistical tables for this report have been compiled from those prepared by each junior obstetric house-physician for his term of office during the year.

The number of women attended in the out-patient maternity department from January 1st, 1911, to December 31st, 1911, was 1185. A few cases of threatened abortion and those returned as "not in labour" or "not pregnant" are not included in this total.

The cases were made up as follows:

Single births	1141
Twin births	20
Triplet births	1
Abortions	12
Transferred to Mary Ward	11
	1185

There were 508 children born before the arrival of the obstetric clerk; and although many of the mothers of these children had been seen early in labour by the clerk the presentations are not recorded in the table.

The following table shows the presentations that occurred :

Presentation.	Among single births.	Among twin births.	Among triplet births.	Total.
Vertex	609	18	1	628
Breech	24	11	2	37
Face	4	—	—	4
Transverse	—	2	—	2
Not stated (including "born before arrival cases")	506	7	—	513
Children born				1184

The positions of the vertex observed were :

L.O.A	379
R.O.A.	178
R.O.P.	51
L.O.P.	20
Not stated	5

In the 71 cases of occipito-posterior positions, reduction took place naturally or with medical aid in 40; of these 30 were R.O.P. and 10 L.O.P. There were 31 cases in which reduction did not occur, and of these 21 were R.O.P. and 10 L.O.P.

Children Born.—During the year there were 1184 viable children born, of whom 1166 were living and 18 stillborn. The causes of the stillbirths are shown in the following list :

Prematurity	3
Macerated	5
Breech presentation	2
Transverse lie	1
Prolapse of cord	1
Accidental hæmorrhage	2
Obstructed labour	1
Born before arrival—breech	2
Other causes	1
	18

Forceps was employed to assist delivery in 28 cases during the year; the indications for its use were delay in the second stage in 14, primary uterine inertia in 2, contracted pelvis in 1, occipito-posterior positions in 9, face presentation which had been converted into L.O.A. in 1, and concealed accidental hæmorrhage in 1.

Version was performed on 3 occasions, twice in the delivery of the second twin which was in the transverse lie and once in a case of occipito-posterior position in which there was ante-partum hæmorrhage; this third case is reported under "Maternal Deaths."

In all three cases internal version was done.

Maternal Deaths.—During the year two mothers died.

(1) Death was due to concealed accidental hæmorrhage. When first seen the patient was suffering from the effects of loss of blood. The external os measured about one and a half inches in diameter. A de Ribe's bag was put in and the os was rapidly dilated, the vertex presented in the third position, forceps was applied, and a still-born child delivered. Hæmorrhage followed the birth.

Pituitary extract, ergot, and strychnine were administered, and intra-venous infusion performed, but the patient never rallied, and died soon after delivery.

(2) Death was due to ante-partum hæmorrhage. The child was lying in the third position of the vertex with the arm prolapsed; the arm was returned to the uterus, but the head would not engage. There was ante-partum hæmorrhage. An anæsthetic was given, the head rotated, and an attempt made to deliver with forceps; this failed, and the patient showed evident signs of suffering from loss of blood. Version was performed and a still-born child delivered.

The signs of shock increased, pituitary extract, ergot, strychnine, brandy, and ether were given, and saline infused into a vein, but the patient never improved, and died about an hour after delivery.

Complicated Labours.

During the year 11 patients, whose labours were complicated, were removed from the district into Mary Ward. The following short notes give accounts of the treatment of other complicated labours that occurred.

Placenta Prævia.—There was 1 case; in it the child was of about seven months' gestation and presented by the breech. The cord prolapsed and was not pulsating. A leg was brought down and a still-born child delivered.

Concealed Accidental Hæmorrhage. — Reported under "Maternal Deaths."

Face Presentations.—Four cases occurred during the year; in 3 labour was natural; the fourth was converted by hand into a vertex, the head drawn into the pelvis by means of forceps and delivered in the first position of the vertex.

Prolapse of the Cord occurred twice; in one of the cases it was associated with placenta prævia and is reported above. In the other the cord was replaced with the patient in the knee-elbow position; the child was born in a state of white asphyxia, but recovered after fifteen minutes' artificial respiration.

Post-partum Hæmorrhage.—There were 12 cases during the year, in one of which there was also concealed antepartum bleeding.

In 4 of the remaining 11 cases the placenta was adherent and required digital removal.

In 10 cases the bleeding was stopped by the administration of hot intra-uterine douches, ergot, pituitary extract, etc.

In 1 case of placenta prævia bleeding started two hours after delivery and had caused considerable shock before it was stopped by plugging of the uterus and vagina and the administration of ergot and pituitary extract. The patient was infused with saline and brandy and rallied. The recovery was uninterrupted.

Puerperal Sepsis.—There was 5 cases of puerperal infection during the year, 4 of sapræmia, and 1 of pelvic cellulitis. Two of the sapræmia cases followed normal labours, one a 4½ months' abortion, and the other post-partum hæmorrhage and the digital removal of an adherent placenta. In all the cases the uterus was evacuated and intra-uterine douches given with good results.

In the case of pelvic cellulitis the uterus was also explored; the patient was afterwards admitted to Adelaide Ward.

STATISTICAL REPORT

OF

THE OPHTHALMIC DEPARTMENT

FOR THE YEAR 1911.

By A. C. HUDSON, M.A., M.D., B.C.Cantab., F.R.C.S.Eng.,
OPHTHALMIC REGISTRAR.

During the year 1911 there were 3231 new out-patients, 1050 being male and 2181 female.

The total number of attendances of old and new patients was 8390, 3306 being male and 5084 female. There were also 2078 new casualty patients, the total number of attendances of casualty patients being 3485. 273 patients were admitted to the ward, 131 being male and 142 female.

186 operations were performed on in-patients.

General Statement of In-patients.

Number of beds in ward (including small ward and four cots)	25
Number of patients in ward on Jan. 1st, 1911	25
„ „ „ Dec. 31st, 1911	16

Average number of patients resident daily, 19·81

Analysis of In-patients—

	Discharged.	Died.	Total.
Male	142 ...	0 ...	142
Female	140 ...	2 ...	142
	282	2	284

Table of In-patients.

Orbit,
- Hæmatoma of . . . 1
- Foreign body in . . . 1

Lacrimal apparatus,
- Dacryo-adenitis . . . 1
- Dacryo-cystitis . . . 6
- Fistula of lacrimal sac . . 1
- Mucocele 15

Lids,
- Burn of 1
- Ectropion 1
- Foreign body in . . . 1
- Hæmorrhage from . . . 1
- Laceration of 1
- Nævus 2
- Rodent ulcer. 1

Ocular muscles,
- Squint, convergent . . . 6
- „ divergent . . . 2

Globe,
- Blind painful eye . . . 4
- Contusion of 6
- Rupture of 6
- Shrunken 2

Conjunctiva,
- Dermoid 1
- Granuloma 1
- Laceration of 1
- Nævus 1
- Ophthalmia neonatorum . . 5
- Pterygium . . . 1
- Purulent conjunctivitis . . 1

Cornea,
- Abrasion of . . . 5
- Burn of 4
- Conical 1
- Foreign body in . 1
- Keratitis, dendritic . . 1
- „ hypopyon . 10

Cornea,—(cont.)
- Keratitis, interstitial . . 4
- „ neuropathic . . 1
- „ phlyctennlar . . 4
- „ strumous . . 5
- „ ulcerative . . 26
- Leucoma adherens . . . 3
- Perforating wound . . . 12

Iris and ciliary body,
- Iridocyclitis 9
- Iritis 17
- Results of iritis . . . 4

Lens,
- Capsular membrane . . 5
- Cataract, congenital . . 1
- „ lamellar . . . 2
- „ presenile . . 2
- „ secondary . . . 3
- „ senile . . . 20
- „ traumatic . . . 2

Retina,
- Detachment of . . . 5
- Retinitis 1

Choroid,
- Choroiditis 6
- Sarcoma of 1

Sclera,
- Wound of 3
- Foreign body in . . . 1

Optic nerve,
- Atrophy 3

Glaucoma,
- Congenital 1
- Primary . 9
- Secondary 5

Sympathetic inflammation 1
Cavernous sinus thrombosis 1
Ethmoidal sinus disease . . 1

Table of Operations performed.

Orbit,
- Foreign body removed from . 1

Lacrimal apparatus,
- For lacrimal abscess . . 3
- Curettage of lacrimal passages 3
- Excision of lacrimal sac . . 14
- Probing lacrimal passages . 17
- Insertion of style . . . 1

Lids,
- Plastic operation for ectropion . 2
- Removal of foreign body from . 1
- Electrolysis of nævus . . 5
- Excision of rodent ulcer . . 1
- Tarsorraphy 2

Ocular muscles,
- Advancement 3
- „ with tenotomy . 2
- Tenotomy 4

Globe,
- Evisceration 1
- Excision 23

Conjunctiva,
- Excision of dermoid . . . 1
- „ nævus . . . 2
- „ pterygium . . 1

Cornea,
- Cauterisation of conus . . 4
- „ ulcer . . 3
- Ionisation of ulcer . . . 1
- Removal of foreign body . . 1

Cornea,—(cont.)
- Paracentesis 2
- Sæmisch section . . . 1

Iris,
- Division of anterior synechia . 1
- Iridectomy for bulged iris . 2
- „ for excluded pupil . 2
- „ for glaucoma . 9
- „ for leucoma adherens . . 4
- „ optical . . . 1
- „ preliminary to extraction . . 1
- „ for prolapsed iris . 6
- Iridotomy 2

Lens,
- Curette evacuation . . . 2
- Discission of capsular membrane 10
- Extraction, after iridectomy . 10
- „ with iridectomy . 15
- „ without „ . . 1
- „ linear . . . 1
- Needling of soft cataract . 5

Sclerotic,
- Foreign body removed from . 1
- Herbert's sclerotomy . . 5
- Posterior sclerotomy . . 1
- Scleral puncture for detachment of retina 1
- Suturing wound of . . . 1

Injection of salvarsan,
- Intra-muscular . . . 1
- Intra-venous 5

Table of General Anæsthetics.

Chloroform	51
Chloroform and ether	43
Ether	1
Total	95

Cases of Hard Cataract.

The lens was removed in 27 cases of hard cataract, in 10 cases after preliminary iridectomy, in 15 cases with iridectomy, and in 2 cases without iridectomy. In one of the cases of extraction without iridectomy, iridectomy was sub-

sequently performed for prolapse; in the second case, a patient 34 years of age a linear section was used. The cataract was secondary in 1 case to iridocyclitis; and was complicated in 1 case by chronic glaucoma, in 2 cases by detachment of retina, and in 2 cases by corneal leucoma: in one of the latter cases it was secondary to injury. In the remaining 21 uncomplicated cases vision was obtained in $7=\frac{6}{6}$ in part or entirely, in $2=\frac{6}{9}$, in $2=\frac{6}{12}$, in $5=\frac{6}{18}$, $2=\frac{6}{24}$, in $1=\frac{6}{36}$, in $1=\frac{6}{60}$, and in 1 = p.l. (iridocyclitis subsequent to operation).

The youngest patient was 34 years of age. In no case was a family history of cataract obtained.

In one case of posterior cortical lens opacity with good vision in the fellow eye preliminary iridectomy was performed.

Cases of Soft Cataract.

Two cases of soft cataract were dealt with by needling, in one of which, with lens-shaped opacity in the lower part of each lens noticed at birth, a history of a similar affection in the patient's father was obtained.

Cases of Glaucoma.

Nine cases of primary glaucoma were admitted, of which 7 were acute in character. In one of the acute cases operation was declined; in the remaining 6 cases iridectomy was performed on 7 eyes. In the two chronic cases Herbert's sclerotomy was performed, and in one of these iridectomy was required later for increased tension. Herbert's sclerotomy was performed also in 1 case of glaucoma probably secondary to iridocyclitis; in this case a subsequent increase of tension was successfully combatted without operation.

One case of unilateral buphthalmos, in a boy, æt. 10 months, whose symptoms dated from birth, was dealt with by means of a Herbert's sclerotomy. Ten days after operation the intra-ocular tension was only slightly above the normal, and there was considerable diminution of corneal haze.

Treatment with Salvarsan.

Four cases of undoubted syphilitic affection of the uveal tract were treated with intra-venous infusion of salvarsan. The main features of these cases are tabulated below.

Registered No.	Age and sex.	Evidence of syphilis.			Dose.	Complications of infusion.	Result.
		Date of primary lesion.	Secondary lesions.	Ocular condition.			
J.B.L., 90	30 M.	3 months previously	Sore throat and rash on trunk and limbs	R. and L. iritis without nodules, 2 months	·6 grm.	Rigor after infusion and rise of temperature to 102·8° F. 24 hours later	Rapid improvement in eyes and disappearance of secondary lesions elsewhere.
J.B.L., 93	21 M.	6 weeks previously	Injection of fauces, rash on trunk and limbs	R. and L. nodular iritis, about 1 week	·6 grm.	Rigor and rise of temperature to 100·4° after infusion	Rapid improvement in eyes and disappearance of rash in 5 days.
J.B.L., 120	49 F.	—	Ulceration of epiglottis and pharynx; rash on face and neck; 2 months	R. and L. nodular iritis, about 3 months	·6 grm.	Vomiting soon after infusion and rise of temperature to 100·4°	Rapid improvement in eyes and almost complete disappearance of rash in 6 days.
J.H.F., 103	46 M.	5 years and 2½ years previously	History of rash on trunk and limbs 9 months previously	L. nodular iritis, 2 weeks. History of R. and L. iritis 9 months previously	·43 grm.	Rigor with rapid pulse during infusion	Considerable improvement in eyes in 2 days.

In a fifth case (J.H.F., 3), a woman with a history of syphilitic infection and positive Wassermann reaction, suffering from bilateral iridocyclitis with evidence of choroido-retinal disease in one eye, intra-venous infusion of salvarsan was followed by shivering, vomiting, and slight rise of temperature; no improvement was noted in the eye condition. An intra-muscular injection of ·3 grm. was given in the case of a boy æt. 3, with a large nodule in the iris and deposits on the back of the cornea, but appeared to exercise no influence on the condition, which progressed for a time and then became apparently stationary under treatment with mercury and iodide of potassium, after leading to considerable disorganisation of the tissues.

Abstract of Fatal Cases.

E. E—, female, æt. $\frac{3}{12}$.

Bilateral iritis, symptoms having been noticed 14 days. Snuffles, and nodes on skull, probably of syphilitic origin.

Patient died 5 weeks after admission with symptoms of meningitis.

P. S—, female, æt. 14.

Left external hordeolum noted 7 days before admission.

Swelling of left upper lid with proptosis and great limitation of movement of globe. O.D. normal. High fever.

Subsequent development of abscess in hand and over lower end of fibula: *Staphylococcus aureus* obtained in pure culture from former.

Fever was maintained and death occurred on fourth day after admission, condition of O.Ds. remaining normal throughout.

At post-mortem examination pus found at apex of orbit, in cavernous sinus and at base of brain.

REPORT

OF THE

DEPARTMENT FOR DISEASES OF THE SKIN.

1911.

By E. STAINER, M.A., M.D.Oxon, M.R.C.P.Lond.

DISEASES.	Jan.		Feb.		March.	
	M.	F.	M.	F.	M.	F.
Acne rosacea	1	...	...	1	1	4
,, vulgaris	1	1	1	2	1	2
Alopecia	...	...	1	1	...	...
,, areata	7	1	6	3	5	3
Dermatitis	...	...	...	...	...	...
Eczema (various)	15	7	10	13	13	10
Epidermolysis bullosa	...	...	...	...	...	...
Erythema (various)	...	...	...	...	...	1
,, multiforme	...	...	...	...	...	...
,, nodosum	...	...	...	...	...	...
,, pernio	...	...	...	...	...	...
Folliculitis	...	...	...	...	...	...
Furunculosis	1	1	...	...	1	...
Herpes simplex	...	...	...	...	...	...
,, zoster	...	...	1	2	...	1
Hyperkeratosis	...	...	...	1	...	...
Ichthyosis	1	...	2	1	...	..
Leucodermia	...	...	...	...	...	...
Lichen simplex	...	...	...	...	...	...
,, planus	...	...	1	...	...	1
,, urticatus	...	...	...	1	...	...
Lupus erythematosus	...	...	...	1	...	...
,, vulgaris	1	...	...	1	...	1
Miliaria	...	...	...	...	...	...
Molluscum contagiosum	...	...	...	...	...	...
Nævus vascularis	...	4	2	3	2	2
Papilloma	1	1	...	...	...	...
Pediculosis capitis	1	1	2	...	1	3
,, corporis	...	...	...	...	...	1
Pemphigus	...	...	...	...	...	...
Pityriasis rosea	1	2	1	1	1	...
Prurigo	...	...	...	...	...	1
Pruritus	...	...	...	...	...	1
Psoriasis	3	6	3	4	2	1
Purpura	1	1	...	...	...	1
Pyodermia (Impetigo), etc.	7	5	3	3	11	4
Rodent ulcer	...	...	...	...	...	...
Scabies	4	2	2	...	1	1
Sclerodermia	...	...	...	...	...	...
Seborrhœa capitis	1	...	2	...	...	...
,, corporis	...	..	...	...	3	2
Sycosis	...	...	...	...	1	...
Syphilis, congenital	...	...	...	...	...	...
,, primary	...	...	...	1	...	...
,, secondary	1	..	...	2	1	1
,, tertiary	1	1	3	1	1	1
Tinea circinata	1	1	2	2	6	4

Table, 1911.

April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
...	3	1	4	...	...	1	3	...	...	...	...	...	...	...	2	...	2	23
1	1	...	...	2	1	...	1	1	2	2	3	...	3	2	1	1	2	31
...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	4
3	6	8	7	2	6	4	2	...	2	2	2	2	3	5	1	1	...	81
...	1	2	1	...	1	3	1	2	3	2	7	1	3	2	...	2	2	33
17	6	17	17	13	9	7	15	12	11	13	17	14	16	5	11	7	2	277
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	1
...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	...	4
...	...	...	1	...	...	...	2	...	...	1	...	1	...	...	...	1	2	8
...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	2
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
...	1	...	...	...	...	...	...	...	...	...	1	1	...	...	...	...	...	3
1	...	4	...	2	...	...	...	1	...	...	...	1	...	1	...	1	...	14
...	...	...	...	...	1	...	...	...	...	...	...	...	...	1	1	...	1	4
...	...	5	...	...	...	...	...	...	1	2	...	...	...	...	...	...	...	12
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2
2	...	...	1	1	2	...	...	...	...	...	1	1	...	...	2	...	...	14
...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	2
1	...	...	...	...	...	...	...	...	2	...	3	1	2	...	...	...	...	11
...	2	...	5	1	1	...	...	3	2	...	2	...	...	1	1	...	...	19
...	...	...	2	...	...	...	1	...	...	...	1	1	...	...	...	...	...	6
...	...	...	...	...	...	...	1	...	...	1	...	1	...	...	...	...	...	6
...	...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1
..	2	6	7	...	1	5	3	...	...	4	4	1	...	2	1	...	1	50
1	1	1	1	...	...	1	...	1	...	1	...	1	...	...	1	...	...	11
2	3	2	...	...	1	1	1	1	...	...	...	1	1	1	3	...	1	26
...	...	...	1	...	...	...	...	...	...	...	1	...	...	1	4	...	...	8
...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	...	...	2
...	2	...	...	1	2	2	1	...	...	...	1	1	...	1	...	...	1	18
...	...	...	1	...	2	...	...	...	...	...	1	...	...	...	1	...	...	6
...	...	1	1	2	1	1	...	...	...	1	...	...	...	1	1	...	...	10
2	2	2	9	7	4	...	3	5	1	...	9	5	...	2	1	...	2	73
...	...	...	...	...	...	...	1	1	...	2	...	1	3	1	...	1	...	13
8	5	10	5	4	7	4	4	11	8	7	4	5	2	5	1	9	...	132
...	...	...	1	...	...	...	1	...	...	...	2	...	...	...	1	...	...	5
5	2	1	5	1	2	2	1	3	...	5	1	5	...	4	3	3	...	53
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1
...	...	...	...	...	...	...	...	1	3	4	1	...	...	1	...	1	...	14
1	...	...	...	1	1	...	...	3	1	1	...	...	...	...	1	1	...	15
2	1	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	6
...	...	...	...	1	...	...	2	...	...	...	...	...	2	...	...	...	...	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
2	...	...	2	...	2	...	2	...	...	1	...	1	2	1	...	...	1	19
1	...	1	...	1	...	1	3	1	1	2	...	1	...	1	1	...	...	22
1	1	1	3	1	2	...	...	1	2	...	1	1	1	2	...	2	...	35

Statistical Table,

DISEASES.	Jan.		Feb.		March.	
	M.	F.	M.	F.	M.	F.
Tinea tonsurans	12	8	10	21	8	22
„ barbæ	...	...	...	...	...	...
„ versicolor	...	...	...	...	...	...
Tuberculosis cutis	1	...	...	...	...	...
Urticaria	1	...	...	...	1	2
Ulcer, simple	...	...	...	1	...	1
Varicella	...	...	...	...	...	...
Various	2	...	...	1	...	...

1911—continued.

April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Total.
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
17	8	20	22	15	14	5	2	...	...	...	2	2	4	5	6	6	5	214
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	2	...	...	...	...	...	1	...	...	...	1	4
...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	2
...	1	2	1	1	1	1	...	4	2	...	2	1	3	2	...	2	...	27
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	4
1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
...	2	...	...	1	1	3	1	1	2	1	2	1	...	1	1	...	...	20
																		1361

REPORT

OF THE

THROAT DEPARTMENT OF ST. THOMAS'S HOSPITAL FOR 1911.

By W. G. HOWARTH, M.A., M.B., B.C.Camb., F.R.C.S.Eng.,
SURGEON IN CHARGE OF THE DEPARTMENT.

The following Report has been compiled on the same lines as in former years.

Total Number of New Cases treated during the Year 1911.

Disease.	Number of patients.		
	Male.	Female.	Total.
A. Affections of the mouth, fauces, and tonsils .	46	47	93
B. „ „ „ nose and accessory cavities .	160	167	327
C. „ „ „ naso-pharynx, pharynx, and œsophagus	109	154	263
D. Affections of the larynx	38	53	91
E. „ general and miscellaneous . .	18	16	34
Totals	371	437	808

A. *Diseases of the Mouth, Fauces, and Tonsils.*

Disease.	Number of patients.		
	Male.	Female.	Total.
Stomatitis	1	2	3
Acute and subacute tonsillitis	18	14	32
Tonsillar and peritonsillar abscess	5	1	6
Chronic follicular tonsillitis	7	8	15
Hypertrophy of tonsils	3	12	15
Epithelioma of tonsils	1	0	1
Mucous patches on tonsils	2	1	3
Tertiary syphilis of tonsils, palate, etc.	3	5	8
Carcinoma of tongue	2	0	2
Acute glossitis	1	0	1
Hypertrophied papillæ foliatæ	2	0	2
Hypertrophied lingual tonsil	0	2	2
Hypertrophy of uvula	0	1	1
Papilloma of uvula	1	1	2
Totals	46	47	93

B. *Diseases of the Nose and Accessory Cavities.*

Disease.	Number of patients.		
	Male.	Female	Total.
Acute and subacute rhinitis	6	6	12
Chronic nasal catarrh	6	15	21
*Hypertrophic rhinitis	56	53	109
Atrophic rhinitis	8	22	30
*Deflected septum and spurs	60	46	106
Malignant disease of nose	2	0	2
Vasomotor rhinorrhœa	1	3	4
Empyema of antrum	1	5	6
„ of frontal sinus	0	1	1
„ of ethmoidal cells	1	1	2
Syphilis of nose	5	3	8
Perforation of nasal septum	1	1	2
Hæmatoma „ „ „	1	0	1
Abscess „ „ „	2	2	4
Tuberculoma „ „	0	1	1
Dislocated septal cartilage	6	1	7
Epistaxis	3	4	7
Eczema of vestibule	1	1	2
Foreign body in nose	0	2	2
Totals	160	167	327
*Hypertrophic rhinitis occurred together with deflected septum in the above cases	50	42	92

C. *Diseases of the Naso-pharynx, Pharynx, and Œsophagus.*

Disease.	Number of patients.		
	Male.	Female.	Total.
Acute naso-pharyngitis	5	3	8
Chronic naso-pharyngitis	11	15	26
Acute and subacute pharyngitis	3	5	8
Chronic pharyngitis	20	35	55
Adenoids	23	24	47
Tonsils and adenoids	41	67	108
Tertiary syphilis of pharynx	3	1	4
Carcinoma of pharynx	1	0	1
Functional dysphagia	1	2	3
Carcinoma of œsophagus	1	2	3
Totals	109	154	263

D. *Diseases of the Larynx.*

Disease.	Number of patients.		
	Male.	Female.	Total.
Acute and subacute laryngitis	5	8	13
Chronic laryngitis	6	25	31
Tubercle of larynx	13	10	23
Syphilis of larynx	2	2	4
Carcinoma of larynx	7	3	10
Complete left recurrent paralysis	1	0	1
Functional aphonia	1	4	5
Œdema of larynx	1	1	2
Angeioma of larynx	1	0	1
Fractured cricoid cartilage	1	0	1
Totals	38	53	91

E. *Other Diseases, etc.*

Disease.	Number of patients.		
	Male.	Female.	Total.
Myeloid sarcoma of (? jaw)	1	0	1
Tuberculous adenitis of neck	0	3	3
Asthma	3	1	4
Medical	5	3	8
Surgical	3	2	5
Otitis media	6	7	13
Totals	18	16	34

Operations performed under a General Anæsthetic in the Out-patients' Theatre.

Nature of operation.	Number of patients.		
	Male.	Female.	Total.
Removal of tonsils and adenoids	108	133	241
Turbinectomy	0	1	1
For deflected nasal septum	1	0	1
Totals	109	134	243

In nearly all cases the anæsthetic used was ethyl chloride.

REPORT

OF THE

EAR DEPARTMENT OF ST. THOMAS'S HOSPITAL

FOR THE YEAR 1911.

By H. J. MARRIAGE, M.B., B.S.Lond., F.R.C.S.Eng.,
AURAL SURGEON IN CHARGE OF OUT-PATIENTS.

New Cases treated during the Year 1911.

Disease.	Males.	Females.	Total.
Diseases of the external ear	102	66	168
,, ,, middle ear	513	516	1029
,, ,, internal ear	43	24	67
,, ,, nose, mouth, pharynx and larynx	30	31	61
Miscellaneous	7	21	28
Total	695	658	1353

Disease.	Males.	Females.	Total.
A. Diseases of the External Ear.			
Eczema of auricle	5	3	8
Herpes of auricle	1	—	1
Sebaceous cyst of auricle	1	—	1
Abscess of auricle	5	1	6
Perichondritis of auricle	1	—	1
Congenital atresia of external meatus	—	1	1
Exostosis of external meatus	6	1	7
Acute otitis externa	24	17	41
Furuncle of external meatus	11	7	18
Foreign body in external meatus	2	2	4
Cerumen	46	34	80
Total	102	66	168
B. Diseases of the Middle Ear.			
Otitis media:			
Acute suppurative	80	61	141
Chronic ,,	234	220	454
,, ,, with polyp	31	22	53
Acute non-suppurative	12	6	18
Chronic ,,	44	82	126
Acute mastoid disease following acute otitis media suppurativa	3	6	9
Acute mastoid disease following chronic otitis media suppurativa	1	3	4
Old mastoid disease	7	11	18
Sclerosis following chronic otitis media suppurativa	24	26	50
Traumatic perforation of tympanic membrane	—	1	1
Eustachian obstruction:			
Adenoids	65	62	127
Other causes	12	16	28
Total	513	516	1029
C. Diseases of the Internal Ear.			
Deaf-mutism		1	1
Ménière's symptoms	1	—	1
Nerve-deafness	37	17	54
Congenital syphilis	2	6	8
Acquired syphilis	3	—	3
Total	43	24	67

Disease.	Males.	Females.	Total.
D. Diseases of the Nose, Mouth, Pharynx and Larynx.			
Hypertrophic rhinitis	4	3	7
Atrophic rhinitis	3	1	4
Acute rhinitis	3	8	11
Chronic rhinitis	1	2	3
Syphilitic rhinitis	—	1	1
Deflected septum nasi	11	5	16
Epistaxis	—	2	2
Nasal polypi	2	1	3
Nasopharyngeal polyp	1	—	1
Rodent ulcer of septum	1	—	1
Empyema of antrum Highmori	1	—	1
Acute tonsillitis	—	3	3
Sarcoma of tonsil	1	—	1
Acute pharyngitis	—	1	1
Chronic pharyngitis	2	4	6
Total	30	31	61
E. Miscellaneous Diseases.			
Gland over mastoid	1	4	5
Glands of neck	1	2	3
Parotitis	1	—	1
Neuralgia	1	1	2
Hysterical deafness	—	3	3
Medical	—	4	4
Surgical	—	3	3
Dental caries	—	2	2
Nihilitis	3	2	5
Total	7	21	28

Operations performed in the Out-patients' Theatre.

Operation.	Males.	Females.	Total.
Removal of tonsils	1	—	1
Removal of tonsils and adenoids	150	145	295
Removal of aural polypi	1	1	2
Removal of aural polypi and tonsils and adenoids	1	2	3
Total	153	148	301

REPORT FOR 1911

FROM THE

LOUIS JENNER CLINICAL AND PATHOLOGICAL LABORATORIES, ST. THOMAS'S HOSPITAL.

By LEONARD S. DUDGEON, F.R.C.P.

The total number of specimens examined in the Clinical Laboratory during the year was 2458, and the number of cases investigated in the Pathological Laboratories numbered 191.

Tumours, etc.—457 specimens were received from the operating theatres and the out-patients' and special departments.

Of these—

128 were carcinomata.
26 were sarcomata.
12 were endotheliomata.
4 were rodent ulcers.

The remainder (278) consisted of non-malignant tumours, fragments of granulation-tissue, enlarged glands, etc.

Serum reaction for typhoid and para-typhoid fever.—This test was done on 45 occasions. In 19 instances the reaction was positive, in 26 negative.

Diphtheria.—Throat cultivations were examined for diphtheria 210 times. Bacilli having the characteristics of the Klebs-Loeffler bacillus were found on 58 occasions. In the remainder (152) the results were negative.

499 bacteriological examinations were made from urine, blood, pus, etc.

Blood.—301 examinations were made in all. These included red-cell, white-cell, and differential counts, estimates of hæmoglobin, examinations for malarial organisms, phagocytic indices, and many other blood tests, including the Wassermann reaction, 265 tests being made. This reaction was positive on 101 occasions.

Sputum.—Sputa were examined 213 times for tubercle bacilli; a positive result was obtained on 40 occasions.

Urines.—The examinations of urines, which numbered 124 in all, were for casts, presence of colon, typhoid, and tubercle bacilli, etc. Of 49 specimens examined for tubercle bacilli these organisms were found on 9 occasions.

Cammidge's pancreatic reaction was done on 40 occasions, with 23 positive results.

Other investigations (313) included examination of inflammatory exudates for cyto-diagnosis, syphilitic lesions for the presence of Treponema pallidum, gastric contents, pus, calculi, etc., while the water, sponges, and dressings used in the operating theatres were tested for the presence of micro-organisms.

The bacteriological investigation of acute and chronic infective diseases and the treatment of these infections with suitable vaccines made in the Laboratories occupies a considerable amount of time, the number of patients increasing year by year.

REPORT

OF THE

X RAY DEPARTMENT, 1911.

SUPERINTENDENT—A. H. GREG, F.R.C.S.

DURING the year an analysis of the books shows that 6138 examinations were made on 4510 patients. The following table shows the purposes for which the patients were examined:

For injuries of bones and joints	2349
„ diseases of bones	480
„ „ of joints	435
„ „ of urinary tract	363
„ foreign bodies	332
„ diseases of chest	232
„ deformities and abnormalities	108
„ diseases of abdomen	97
Teeth	26
Miscellaneous	88
Total	4510

Treatment.

Number of patients treated by—

Electrical and hot air, etc.	192
X rays	91
Radium	4
CO_2	*Nil*
Total	287

REPORT

OF THE

PHYSICAL EXERCISE DEPARTMENT FOR 1911.

By RICHARD TIMBERG, M.R.C.S.(Eng.), L.R.C.P.(Lond.), G.D.(Stockholm).

The year 1911 has been an eventful one in the history of the Physical Exercise Department, in that this year has seen the carrying into effect of the various suggestions for the reorganisation of the Department which were indicated in last year's report.

The decision on this question was, however, not arrived at until the middle of July, 1911. An important addition was then made to the plan, *i. e.* that there should be established in connection with the Department a school for the teaching of massage and allied subjects, open to nurses trained at St. Thomas's or other hospitals.

Considerable alterations of the premises and additions to the equipment were naturally necessary to meet these new requirements. The ground floor ward in Block 2, part of which has been occupied by the Physical Exercise Department during the last four years, has now been entirely devoted to the use of the Department and School, and has been suitably adapted for the purpose. This distribution of the available space has been found to answer admirably.

The structural arrangements involved with the introduction of a new system of hot-water radiators, electric light, electric power at several different points, numerous sinks for wash-basins, besides the usual repainting, etc., necessitated the Department being practically closed for some five weeks during October and November. Towards the end of the latter month the work commenced in earnest, according to the new *régime*; and it may be of interest to set out some of the main features of the scheme.

The official title has now been changed to "The Physical Exercise and Massage Department," as all the massage treatment given in the Hospital now comes under its scope.

The work has been made independent of the Out-patient Department, of which it used previously merely to form a part, and a separate Sister has been appointed. This post is most ably filled by the late Sister of the Ophthalmic Ward, Miss Randell, who has qualified herself for the work by special studies during the last year, and by taking the higher examination of the Incorporated Society of Trained Masseuses.

In addition there are employed by the Hospital two assistants, one on the male and one on the female side, qualified in Sweden to administer remedial exercises as well as massage. The man assistant is engaged for every morning of the week, besides the three afternoons when the Department is open as of old. His duties are to treat the great number of in- and out-patients that attend each morning, and also to give massage in the wards. To help him out with this somewhat formidable amount of work part of it is entrusted to the male attendant in the Electrical Department. This attendant thus carries out a large proportion of the massage in the wards, and in addition a certain number of plain massage cases are treated by him in the Electrical Department, this treatment in many cases there being preceded by electric heat baths. (It is now under contemplation to transfer these baths to the Physical Exercise and Massage Department, as the majority of the cases for which heat baths are being used also receive massage and exercises.)

On the female side the assistant is engaged only for three

afternoons of the week, the morning work there being carried out as well amongst the in- as out-patients by the sister and the pupils in the massage school.

These pupils, to a number not exceeding ten each time, are admitted twice a year in October and April. They live in the Hospital, subject to the usual rules and regulations for the nurses, but doing no other work than that connected with their training, and with the treatment of patients by massage and exercises.

The teaching of their practical work, as well as the grounding in anatomy and physiology, devolves upon the Sister, the essential literature, and also a skeleton and other anatomical preparations being provided for this purpose.

Towards the end of each course a series of lectures on these subjects are given by Dr. Box in the dissecting room of the medical school, and throughout the course lectures on the "Theory of Massage and its Application to Suitable Diseases" are given by the Medical Officer.

The pupils are thus prepared for the examination in massage, held twice a year by the Incorporated Society of Trained Masseuses; and it is the intention to provide facility for those who wish to prolong their studies in order to enter for the higher examination in Swedish remedial gymnastics, held once a year by the same Society. In addition it is proposed that a hospital certificate should be given to the pupils who have thus passed their full time of training.

With regard to the number of cases treated in the Department during 1911, this has been well up to the average, considering the fact that the work was suspended for several weeks during the alterations of the premises.

It is natural that the new rules obtaining during the last month or two, whereby all cases for massage are included, will rapidly swell the list. As yet, however, the proportion of in- to out-patients has not been much affected; it remains at about 10 per cent.

It has still not been thought advisable to try to tabulate these two classes of patients separately. In any attempt to do so there would be much difficulty to avoid overlapping, as such a great number of the in-patients have already visited the Department for their treatment while remaining

in the Hospital, and afterwards have continued to do so as out-patients.

Table of Cases Treated in the Physical Exercise Department during 1911.

Diagnosis.	M.	F.	Total.	M.	F.	Total.
Fracture:						
Jaw	—	1	1			
Upper extremity	28	19	47			
Lower extremity	31	8	39			
				59	28	87
Trauma				11	4	15
Sprain				4	3	7
Dislocations				4	5	9
Internal derangement of knee-joint				16	2	18
Injury to other joints				11	4	15
Chronic synovitis				10	1	11
Cicatricial contractions				9	7	16
Abdominal adhesions after operations				1	1	2
Cut tendons and nerves				8	2	10
Arthritis:						
Gonorrhœal	2	—	2			
Infective	3	1	4			
Osteo-	2	2	4			
Rheumatoid	1	1	2			
				8	4	12
Tuberculous affections of joints				4	3	7
Spinal curvature:						
Scoliosis	14	36	50			
Kyphosis	7	15	22			
Defective development	12	10	22			
Old caries of spine	2	1	3			
				35	62	97
Pain in back				1	5	6
Torticollis (tonic)				2	1	3
Dupuytren's contracture				1	—	1
Coxa vara				2	—	2
Genu valgum				1	1	2
Genu varum				1	—	1
Pes cavus and hammer toes				1	1	2
Pes valgus				6	8	14
Pes planus				11	12	23
Hallux rigidus				1	1	2
Painful feet (without deformity)				—	1	1
Hemiplegia				—	2	2
Spastic paralysis				1	1	2
Disseminated sclerosis				—	1	1
Post-diphtheritic paralysis				1	—	1
Lead paralysis				1	—	1
Infantile paralysis				5	1	6
Peroneal paresis				1	—	1
Crutch palsy				1	—	1
Saturday night paralysis				2	—	2
Carried forward				219	161	380

Diagnosis.	M.	F.	Total.	M.	F.	Total.
Brought forward				219	161	380
Ischæmic paralysis				1	—	1
Paralysis agitans				—	1	1
Habit spasm				1	1	2
Functional tremor				—	2	2
Functional gait				1	2	3
Functional respiratory disturbance				1	1	2
Anorexia nervosa				—	2	2
Neurasthenia				1	1	2
Constipation				1	1	2
Lumbago				1	—	1
Thrombosis				—	1	1
Phlegmasia alba dolens				—	1	1
Prolapse of uterus				—	1	1
Enlarged prostate				1	—	1
Miscellaneous				2	3	5
				229	178	407

SALTER RESEARCH REPORT, 1911.

ON THE ACTION OF CERTAIN DRUGS, TOXIC BODIES, TOXINS AND MICRO-ORGANISMS ON THE FRAGILITY OF THE RED BLOOD-CORPUSCLES OF MAN AND ANIMALS.

By W. W. C. TOPLEY, M.B.Cantab., M.R.C.P.Lond.,

SALTER RESEARCH FELLOW.

The following investigation was undertaken in order to clear up certain points with regard to the fragility of red blood-corpuscles as tested by their resistance to various strengths of sodium chloride solution.

A considerable number of observations have been made by various workers, especially by L. S. Dudgeon.*

The available work bearing on this subject may be summarised by saying that only in the case of congenital cholæmia has a marked and consistent variation from the normal been noted, as originally pointed out by Chauffard.

This report consists only of a record of work already done, and since it is intended to considerably extend the series of experiments performed before publishing any results, and since, also, the existence of important unpublished work by others renders any complete bibliography impossible, it is of no value to discuss at any further length the results already achieved in this particular field of research.

* Dudgeon and Wilson, 'Proceedings of the Royal Society of Medicine,' B, vol. lxxxii, 1909. "On the Presence of Hæm-agglutinins, Hæmopsonins and Hæmolysins in the Blood obtained from Infectious and Non-infectious Diseases in Man."

The present investigation falls into two distinct parts:

Firstly, an attempt has been made to determine whether any of the therapeutic agents usually employed in blood affections have any action on the fragility of the red blood-corpuscles.

Secondly, a series of animals have been subjected to the action of certain organisms, toxins and toxic substances which are commonly associated with the production of hæmolysis and their blood subsequently tested for any alteration in the resistance of the red cells to saline solutions of varying strength.

Technique.

In the course of this investigation many variations were made in the procedure adopted, involving mainly the manner of preliminary treatment of the red cells to be tested. Some of these will be dealt with here, together with a description of the method finally adopted, and the reasons for its adoption, while certain details of treatment employed only in particular experiments and for special reasons will be described in the sections to which they apply.

The basis of all the experiments has been the addition of red cells to various standard solutions of sodium chloride and the observation of the resulting presence or absence of hæmolysis.

The standard adopted has been the entire absence of hæmolysis indicated by the absence of any tinging of the supernatant fluid after the red cells have been separated by centrifugalisation.

The differentiation of the very faint shades of colour involved has been found to be extremely difficult when the determination has had to be made by artificial light; under these circumstances a background of light grey has been found to be distinctly preferable to one of dead white, but even with this aid the difficulty has often been very considerable, while with bright daylight there is seldom any need for hesitation when picking out the tube in which hæmolysis is no longer in evidence.

For this reason as many observations as possible, includ-

ing the large majority of those undertaken, were made by daylight.

Preparations of Standard Solutions.

The foundation of the method employed has been the admixture of varying quantities of a 1 per cent. saline solution and distilled water as described by L. S. Dudgeon.*

The only variation adopted was that the first standard solutions were prepared by running the 1 per cent. saline and distilled water from graduated burettes into small glass vessels fitted with covers to prevent evaporation, and from these solutions a second series of dilutions were made up in small glass tubes by mixing varying quantities of the first series measured in capillary pipettes.

Thus by adding 3 c.c. of 1 per cent. saline to 7 c.c. of distilled water a 0·3 per cent. solution of sodium chloride was obtained; similarly 4 c.c. of the saline with 6 c.c. of distilled water gave a 0·4 per cent. solution.

By mixing 1 volume of the 0·4 per cent. solution with 9 volumes of the 0·3 per cent. solution a 0·31 per cent. solution resulted, and similarly for all intermediate values.

In this way a series of tubes was prepared containing a series of dilutions of sodium chloride varying in adjacent tubes by 0·01 per cent., any given series being planned so that the point of cessation of hæmolysis would be expected to fall within its limits, allowing a considerable margin for variation.

The 1 per cent. solution was freshly prepared before each series of experiments from chemically pure sodium chloride and recently distilled water, never more than forty-eight hours old, and this same water was used for the dilution of the saline solution.

The Use of Washed or Unwashed Red Cells.

The use of washed red cells offers certain obvious advantages and is attended by certain equally obvious disadvantages.

The method involves certain preliminary manipulations

* *Loc. cit.*

not necessitated by those methods in which fresh blood is employed, but it possesses the advantage that the cells may be collected at a given instant and examined later on at a convenient time, while any method involving the direct addition of the blood to the standard saline solutions involves also a continuous series of observations following immediately the collection of the blood from the patient or experimental animal under observation.

This advantage can only hold, however, if we may assume that the blood-cells do not undergo any change in the saline and citrate solution in which they are collected and remain until examination.

It became evident, however, during the course of this investigation that alterations may occur during a comparatively short interval which would obscure slight changes in fragility, these alterations usually being in the direction of " recovery " or decrease in the fragility.

Thus in the case of syphilitic myelitis treated with injections of salvarsan in which the hæmolytic point was throughout unusually high, there was a decrease of 0·03 per cent. in its value after the blood-cells had stood for one hour in citrated saline, and similarly during other experiments results were obtained which rendered it evident that the preliminary washing of red cells, where changes occurring *in vivo* are under consideration, might effectually mask small variations, though never obscuring changes of the order of those found in congenital cholæmia.

For this reason the preliminay washing of the red cells was discontinued in this class of investigation, though retained in certain cases where changes *in vitro* were being examined.

We have, of course, to apply a small correction for the amount of serum added with the red cells when fresh blood is employed, and this correction will vary with the proportion of blood added.

If we add one volume of blood to ten of saline the correction necessary to allow for the salt content of the serum added will fall in the second decimal place, and may be supposed to be certainly not greater than 0·03 per cent. or 0·04 per cent.

Diminution of the quantity of blood added will, of course, correspondingly diminish the error due to the salt content of the serum added, though this salt content may not be the only factor introduced. In any case the addition of a small amount of serum with the red cells will operate equally in a series of observations, and is thus of only very minor importance.

The addition of a volume of blood which forms one eleventh of the total mixture results in the formation of a loose clot which has to be separated by centrifugalisation, and then may remain hanging in the clear solution in a manner which tends in some cases to obscure slight traces of hæmolysis.

It was found that by adding a volume of blood equal to $\frac{1}{21}$ of the total mixture, that is, equal to half of the volume marked off for measuring the ten volumes of saline, the clot after centrifugalisation fell in the majority of cases to the bottom of the tube, leaving a clear supernatant fluid in which the determination of slight hæmolysis was comparatively easy.

Other experiments were made by adding a very small proportion of blood to the saline solutions—$\frac{1}{50}$, $\frac{1}{100}$, $\frac{1}{200}$, etc., of the total volume to see whether quantities of blood which after admixture produced no clotting could yield satisfactory results.

It was found, however, that the paler tints obtained with very small quantities of blood constituted an additional difficulty and the method was abandoned.

A series of experiments mere then made to determine the effect of the interval allowed to elapse between collection of the blood and centrifugalisation of the mixture.

The following example may be taken as typical:

Experiment.

Blood of rabbit added directly to saline solution and centrifugalised after varying intervals.

(1) Centrifuged after 15 minutes 0·52 NaCl protects.
(2) „ „ 30 „ 0·53 „ „
(3) „ „ 1½ hours 0·53 „ „
(4) „ „ 3½ „ 0·54 „ „
(5) „ „ 12 „ slight hæmolysis in all tubes.

Thus it is seen that during the first few hours there is a very slight increase in the point of concentration at which hæmolysis ceases, while after long intervals traces of hæmolysis occur in all cases.

For the purposes of this investigation a uniform interval of thirty minutes was allowed to elapse between collection of the blood and centrifugalisation of the mixtures.

In the cases of patients the blood was collected from the thumb under slight pressure. In the case of rabbits, which were the experimental animals employed, it was collected from the marginal vein of the ear. In all cases it was collected in the same capillary pipette as had been employed in making up the standard saline solutions as in the method described by Dudgeon.

Part I.

Arsenical Compounds.

The observations made under this section may be divided into three groups.

(*a*) Patients receiving arsenic in therapeutic doses, as liquor arsenicalis.

(*b*) Patients receiving injections of salvarsan (*Dioxydiamido arsenobenzol*).

(*c*) The effect of atoxyl on the red blood-corpuscles of the rabbit.

(*a*) With regard to the observations made on patients receiving therapeutic doses* of liquor arsenicalis no alteration in the fragility of the red blood-cells was found to occur in any case.

(*b*) The blood of four patients who had received intravenous injections of salvarsan was examined at intervals varying from ten minutes to six days after the injection; in no case was any alteration in fragility detected.

The blood of one patient who received two series of intramuscular injections of salvarsan, each series consisting of four injections of 0·1 grm. each, one injection being given daily with seven days' interval between the two series, gave somewhat atypical results.

* ɱij to ɱviij three times daily.

This blood was examined on fourteen occasions, with the following results:

Date.											
20 : 2 : 12	Before first injection . . .							0·43	per cent.	NaCl	protects.
20 : 2 : 12	Two hours after injection . .							0·43	„	„	„
21 : 2 : 12	. . . . .							0·42	„	„	„
22 : 2 : 12	. . . . .							0·43	„	„	„
23 : 2 : 12	. . . . .							0·43	„	„	„
24 : 2 : 12	. . . . .							0·45	„	„	„
26 : 2 : 12	. . . . .							0·44	„	„	„
29 : 2 : 12	. . . . .							0·45	„	„	„
1 : 3 : 12	. . . . .							0·47	„	„	„
5 : 3 : 12	. . . . .							0·46	„	„	„
7 : 3 : 12	. . . . .							0·46	„	„	
10 : 3 : 12	. . . . .							0·45	„	„	„
14 : 3 : 12	. . . . .							0·45	„	„	„
19 : 3 : 12	. . . . .							0·45	„	„	„

It will thus be seen that this blood showed throughout an abnormally high hæmolytic point.

The normal for human red-cells treated by this method may be considered to fall between 0·38 and 0·40 per cent., and very few results were obtained for human red cells above this figure. None excepting the above case reached 0·42 per cent.

This patient was suffering from a high transverse myelitis occurring within eight months of syphilitic infection.

The injections of salvarsan had no influence on his condition, and he eventually left the hospital.

Under the circumstances there is no evidence that the abnormalities in the red-cell fragility were in any way connected with the injections of the drug.

(*c*) *The effect of atoxyl on rabbits' red cells.*—A few preliminary remarks must be inserted here on the methods employed and the general results obtained in the experiments performed with rabbits.

The blood was obtained from the lateral vein of one ear, any injection being made into the lateral vein of the other.

The blood obtained was then treated in the manner described above.

It was at once evident that the blood-cells of rabbits

possess an entirely different degree of fragility, measured against varying strengths of saline solution, from that possessed by human corpuscles.

Thus the cells of apparently normal rabbits tested in this manner give results varying from protection with 0·50 per cent. NaCl to protection with 0·57 per cent. NaCl.

The Belgian hare variety gave higher results than the other types in the majority of cases.

Again, a series of observations taken daily over extensive periods in apparently normal animals showed slightly more variability than is found in human subjects, though these variations seldom corresponded to changes of more than 0·02 per cent. of the saline solutions.

Preliminary experiments were made to test the effect of intra-venous injections of normal saline. The results were uniformly negative.

In view of the importance recently attached to the use of absolutely fresh distilled water in the preparation of normal saline solutions for intra-venous injection, some saline was prepared from some distilled water that had been in the laboratory in a large glass vessel for over nine months. The results of injection were quite negative.

Considering now the results of the experiments with atoxyl.

A certain number of *in vitro* experiments were first performed to test the action, if any, of atoxyl on the washed red-cells; the action was tested in solutions varying from 1 per cent. to 0·001 per cent. of the drug in normal saline.

In some series of experiments the cells were washed after the drug had been allowed to act for thirty minutes at 37° C., in others the mixtures were centrifugalised at high speed after incubation, the supernatant fluid pipetted off, and the red-cells immediately added to the saline solutions.

The results were quite without interest, and need not be elaborated here.

Experiment.

A rabbit received an injection of 0·2 grm. atoxyl into the lateral auricular vein.

The blood-cells were examined before the injection, five

minutes afterwards, one hour afterwards, three hours afterwards, twenty-four hours afterwards, and forty-eight hours afterwards without showing any alterations worthy of note.

On the day following the injection the rabbit showed slight toxic symptoms, but these passed off, and it completely recovered in three days.

On the seventh day after the first injection a second injection of 0·3 grm. atoxyl was given.

The blood was taken immediately before, five minutes after, fifteen minutes after, one hour after, and three hours after, without showing any obvious change.

The effect on the rabbit, however, was almost instantaneous and of a most marked character. It became obviously ill within fifteen minutes of the injection, respiration becoming extremely rapid, and the animal being unable to stand; death, in fact, appeared imminent. Severe gastro-intestinal symptoms appeared within twelve hours, and on the second day the hind limbs were completely paralysed. All symptoms except the paralysis passed off in seven days, during which time, however, the animal wasted considerably. In connection with these same toxic symptoms a marked alteration occurred in the fragility of the red cells.

The percentage of sodium chloride affording complete protection at the commencement of the experiment was 0·56 per cent.

Twenty-four hours after the second injection hæmolysis occurred up to 0·63 per cent. This value fell daily during the following week, and on the seventh day had reached the original value of 0·56 per cent.

Ten days after this injection another injection of 0·5 grm. atoxyl was administered; as before, the blood was examined before and at varying intervals afterwards. No alteration in fragility occurred, and the rabbit displayed no toxic symptoms.

The blood was examined on several occasions afterwards, but showed no change in this respect, and the rabbit recovered completely. The results of this section would appear to show that arsenical compounds administered in therapeutic doses have no action on the fragility of the red blood-corpuscles.

Action of Mercury.

In all the cases examined the drug was administered by inunction.

In some cases the drug had been pushed to the point of salivation.

The results obtained were uniformly negative.

No animal experiments were performed.

Action of Röntgen Rays.

No opportunity has occurred during the course of this investigation of examining the effect of large doses of Röntgen rays administered to human subjects.

The action of the rays on human red cells *in vitro* was, however, tested as follows :

A thick emulsion of red cells in 0·85 per cent. saline and 0·8 per cent. sodium citrate was placed in shallow glass dishes covered with thin paper to eliminate as far as possible the effect of the ozonised atmosphere in the neighbourhood of the tube.

These were then submitted to the action of the rays proceeding from a large tube for periods varying from five to fifteen minutes.

The thick emulsions were then transferred to centrifuge tubes, centrifugalised at high speed, and the deposit of cells added to the standard saline solutions.

In no case was any alteration noted.

Part II.

Action of Bile Salt (Sodium Taurocholate).

A preliminary test was made by adding the washed red cells of a rabbit to various strengths of sodium taurocholate in normal saline, the mixtures being incubated at 37° C. for fifteen minutes and then centrifugalised.

The results were as follows :

0·1 per cent. sodium taurocholate	.	Complete hæmolysis.
0·05 „ „ „	.	„ „
0·04 „ „ „	.	Partial „
0·03 „ „ „	.	Slight „
0·02 „ „ „	.	Trace of „
0·01 „ „ „	.	No „

A large rabbit was then injected, with the following results:

Before injection 0·50 per cent. NaCl protects.

Ten c.c. of 0·50 per cent. sodium taurocholate injected into auricular vein.

5 minutes later
15 „ „
1 hour „
6 hours „
} 0·50 per cent. NaCl protects.

Hence 10 c.c. of a solution of bile-salt which would, *in vitro*, cause instant and complete hæmolysis, had no effect when injected *in vivo*.

Three days later 5 c.c. of 5 per cent. solution of sodium taurocholate were injected intra-venously.

The result was almost instantaneous death.

The large cervical veins were cut across immediately after death and the blood thus obtained added to the standard saline solutions.

Immediately before the injections 0·52 per cent. NaCl afforded complete protection.

The blood taken after death hæmolysed up to 0·58 per cent. NaCl.

This experiment suffers from the obvious disadvantage that one determination was made ante-mortem, the other post-mortem.

The blood had, however, undergone no trace of clotting.

A second experiment was made by injecting 4 c.c. of 0·4 per cent. sodium taurocholate into the auricular vein of a rabbit whose blood in the normal state showed no hæmolysis in 0·51 per cent. saline.

Severe toxic symptoms resulted and death took place in twenty minutes.

Blood taken ten minutes after the injection showed hæmolysis in all tubes by 0·55 per cent. saline.

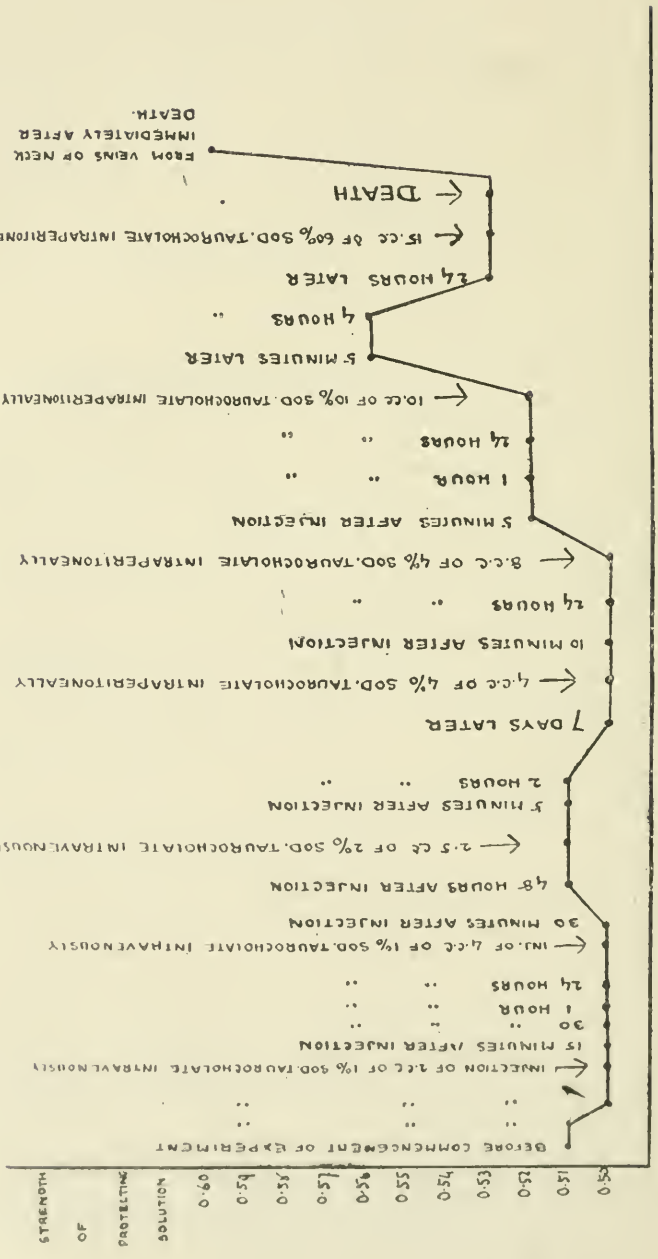


CHART 1.—*Large white rabbit.*—Repeated injections of sodium taurocholate; 1–3, intra-venously; 4–7, intra-peritoneally.

Blood obtained immediately after death, as in the former case, was protected by 0·59 per cent. saline.

The experiments carried out on a third rabbit are shown in the accompanying chart (Chart 1).

The whole series of observations tend to show that bile-salt only produces an alteration in the fragility of the red blood-cells in amounts so large as to cause almost immediate death.

Action of Certain Micro-organisms.

The micro-organisms tested were: *B. pyocyaneus*, *B. Danysz*, and *Staphylococcus aureus*.

A virulent streptococcus of the *pyogenes* type was not forthcoming during the period at which this part of the work was carried out; it is intended, however, to determine the effect of this and certain other organisms in the near future.

The results have been shown graphically in the accompanying charts, and verbal elaboration is unnecessary (Charts 2–5).

The results in all cases show a distinct, though usually not extensive, rise in the fragility of the red cells.

The case of the rabbit which received repeated injections of *Staphylococcus aureus* presents certain peculiarities.

As will be seen, this animal displayed an unusual resistance to the organism injected, but it showed marked and early wasting, and eventually died on the nineteenth day from the first injection.

Another rabbit, inoculated intra-venously with the same organism, showed a rise of 0·02 per cent. in the fragility of its red cells within one hour; it unfortunately died within twelve hours—before a second determination could be made.

The Effect of Specific Hæmolytic Sera.

The experiments performed in this section of the work have yielded results of great interest.

They may be conveniently divided into two parts:

(1) The action of heated immune rabbit serum on human blood-corpuscles *in vitro*.

CHART 2.—*Exp.* 40: *Small brown rabbit.*—Effect of inoculation of 1 c.c. of a saline suspension of *B. pyocyaneus* into auricular vein. *Note.*—The examination, made nineteen hours after injection, was performed with the rabbit at the point of death; while the blood was being collected death occurred; the subclavian vessels were immediately cut across and the remaining tubes filled from this source.

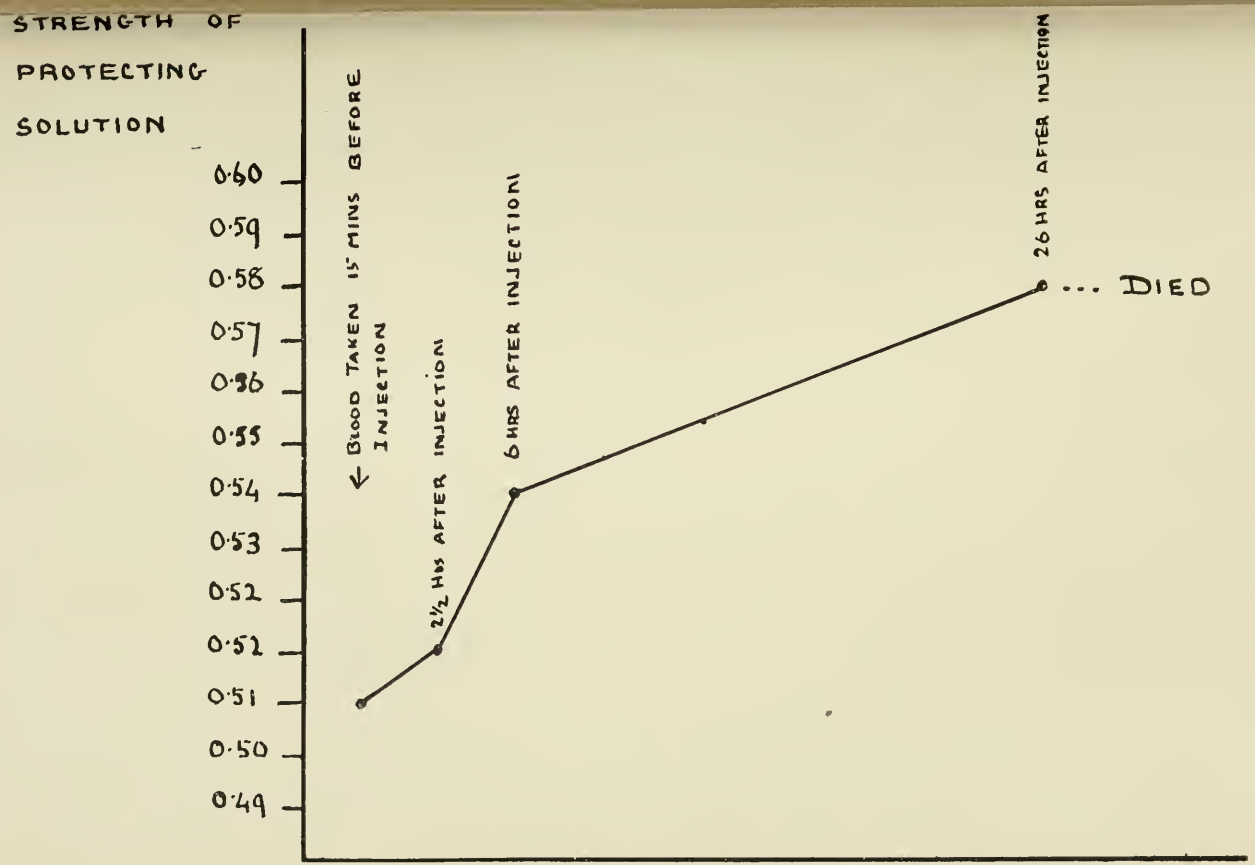


CHART 3.—*Exp.* 47: *Brown and white rabbit.*—Effect of injection of 1·5 c.c. emulsion of *B. pyocyaneus* in saline into auricular vein.

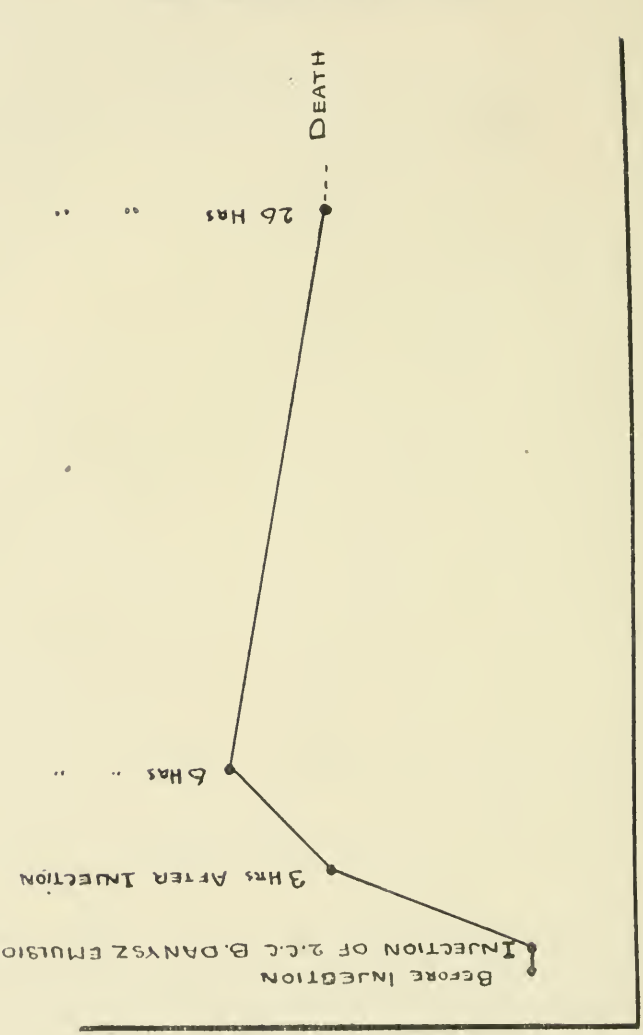


CHART 1.—*Rabbit.*—Effect of intra-venous injection of 2 c.c. of an emulsion of *B. Danysz* in normal saline.

CHART 5.—*Rabbit.*—Result of repeated injections of a saline emulsion of *Staphylococcus pyogenes aureus*. At (1) and (2), 2 c.c. injected intra-venously; at (3) 2½ c.c. injected subcutaneously; at (4) ½ c.c. injected intra-venously and 2 c.c. intra-peritoneally.

(2) The action of immune guinea-pig serum on the blood-corpuscles of the rabbit *in vivo*.

(1) Various methods were adopted for the determination of the action of the hæmolytic amboceptor contained in the rabbit's serum or human red-cells.

The serum employed was obtained from a rabbit which had received a large number of injections of washed human red cells intra-peritoneally.

The serum was separated from the clot by centrifugalisation and then heated at 60° C. for thirty minutes to destroy the complement.

The human red cells employed were collected in saline and citrate, and washed twice in this solution and once in normal saline to remove all trace of complement.

The serum employed contained, in addition to the hæmolysins, very powerful hæmagglutinins, and it was this fact that necessitated the special treatment adopted.

It was found that if the red cells were first submitted to the action of the serum and then transferred to the standard saline solutions, their agglutinated condition constituted a very considerable difficulty, rendering thorough mixing with the saline solutions impossible.

The plan finally adopted was to add one volume of heated immune serum to each of the tubes and then the same volume of human red cells, the whole series being placed in the incubator at 37° C. for fifteen minutes and then centrifuged.

Controls were put up containing normal saline and certain other sera instead of the rabbit's serum.

The following were the experiments performed and the results obtained.

Experiment A.

10 vols. standard saline + 1 vol. normal saline + 1 vol. washed red cells. Result, 0·42 per cent. saline protects.

10 vols. standard saline + 1 vol. heated immune serum + 1 vol. washed red cells. Result, 0·40 per cent. saline protects.

Hence the red cells are more resistant in the presence of the immune serum.

This effect might be due to the binding of the hæmolytic amboceptor to the red cells; it might, however, be due to the action of the hæmagglutinins, possibly in removing the red cells from the action of the saline, for the cells in these tubes rapidly settled to the bottom, possibly in some other way.

The difference again might be due simply to the fact that the 0·02 per cent. represented the difference between the actual salt content of the serum and that of the normal saline.

The following experiments were performed to test these various possibilities.

Experiment B.

The serum taken from another rabbit was heated as in the case of the hæmolytic immune serum.

It was tested for the presence of hæmolysins for human red cells with a negative result.

It was then tested for the presence of hæmagglutinins by noting the result of mixing 1 vol. of the serum, 1 vol. of washed red cells and 10 vols. of saline in a capillary pipette, and incubating for fifteen minutes at 37° C. Marked hæmagglutination occurred.

The following tests were then made :

10 vols. standard saline + 1 vol. normal saline + 1 vol. washed red cells. Result, 0·41 per cent. protects.

10 vols. standard saline + 1 vol. heated immune serum + 1 vol. washed red cells. Result, 0·40 per cent. protects.

10 vols. standard saline + 1 vol. heated normal serum (rabbit) + 1 vol. washed red cells. Result, 0·38 per cent. protects.

Thus this heated normal serum was even more effective in protecting the red cells than the hæmolytic immune serum.

Experiment C.

The following mixtures were put up, with the following results :

(1) 10 vols. standard saline + 1 vol. normal saline + 1 vol. A's washed red cells. 0·40 per cent. protects.

(2) 10 vols. standard saline + 1 vol. A's heated serum + 1 vol. A's washed red cells. 0·39 per cent. protects.

(3) 10 vols. standard saline + 1 vol. B's heated serum + 1 vol. A's washed red cells. 0·39 per cent. protects.

(4) 10 vols. standard saline + 1 vol. heated immune serum + 1 vol. A's washed red cells. 0·37 per cent. protects.

(5) 10 vols. standard saline + 1 vol. heated normal serum (rabbit) + 1 vol. A's washed red cells. 0·37 per cent. protects.

The various sera were tested separately for hæmagglutinins as above.

Result:

A's serum } No hæmagglutination.
B's serum }

Heated normal serum (rabbit): marked hæmagglutination.

Heated immune serum (rabbit): very marked hæmagglutination.

Experiment D.

10 vols. standard saline + 1 vol. normal saline + 1 vol. washed red cells. Result, 0·40 per cent. protects.

10 vols. standard saline + 1 vol. heated human serum + 1 vol. washed red cells. Result, 0·40 per cent. protects.

10 vols. standard saline + 1 vol. heated immune serum + 1 vol. of washed red cells. Result, 0·38 per cent. protects.

The heated human serum produced no hæmagglutination.

Thus it will be seen that the degree of protection afforded by the addition of the sera seems to bear a direct relationship to the amount of hæmagglutination produced, while there is no evidence to show that any alteration in fragility is produced by the hæmolytic amboceptor.

(2) A guinea-pig received six injections of rabbit's washed red cells at intervals of five to eight days.

The animal was then killed, its blood collected and allowed to clot, the clot separated by centrifugalisation, and the serum injected into two rabbits.

The results, shown graphically in the accompanying chart,

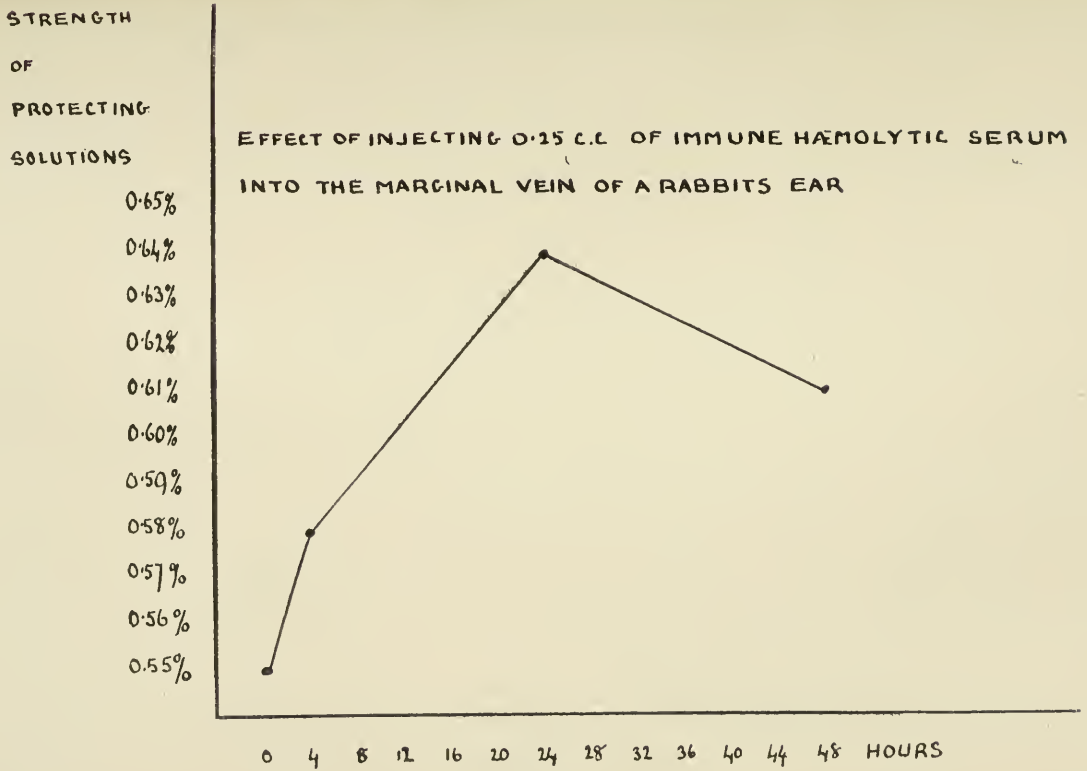
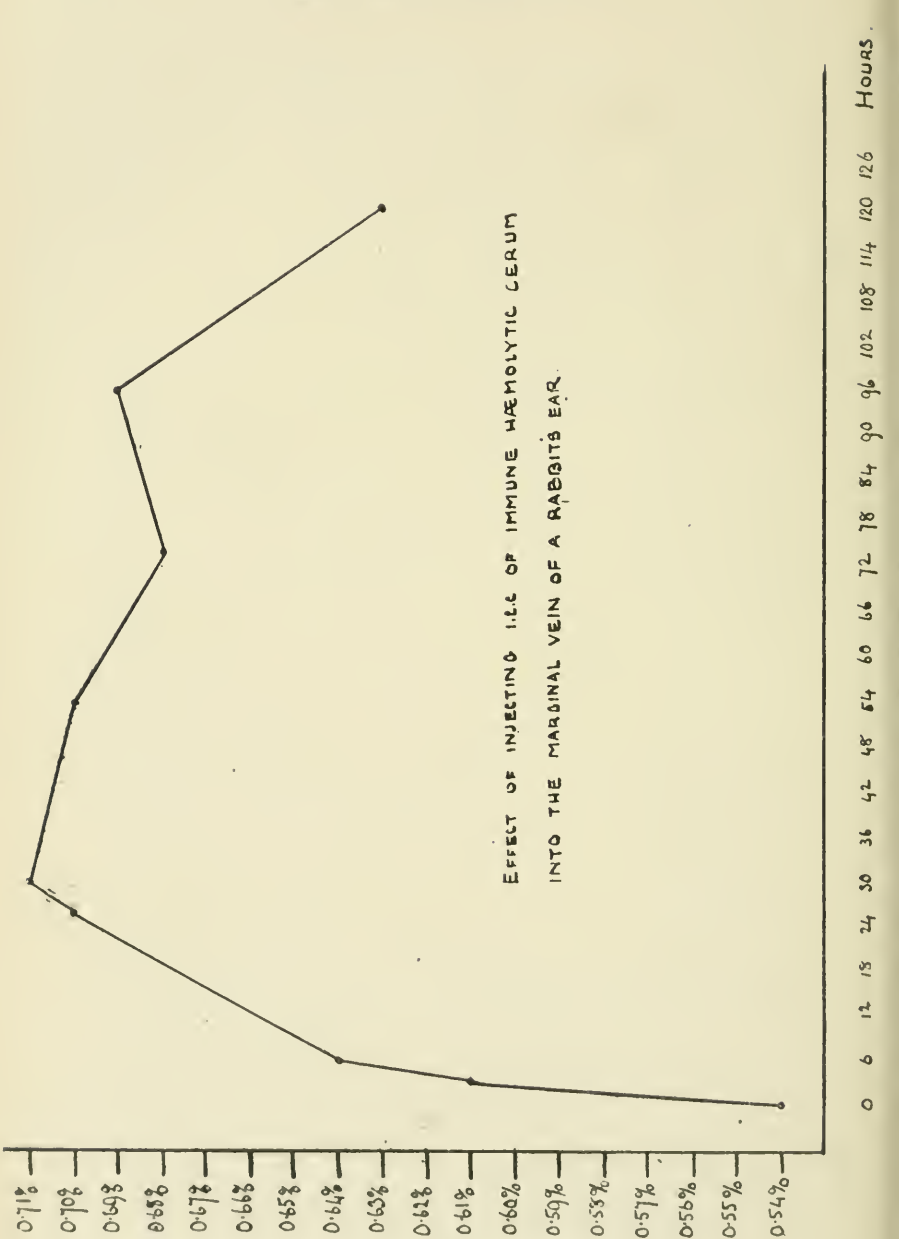

STRENGTH
OF
PROTECTING
SOLUTIONS
EFFECT OF INJECTING 0·25 C.C. OF IMMUNE HÆMOLYTIC SERUM
INTO THE MARGINAL VEIN OF A RABBITS EAR
0·65%
0·64%
0·63%
0·62%
0·61%
0·60%
0·59%
0·58%
0·57%
0·56%
0·55%
0 4 8 12 16 20 24 28 32 36 40 44 48 HOURS

Chart 6.


EFFECT OF INJECTING 1.C.C OF IMMUNE HÆMOLYTIC SERUM
INTO THE MARGINAL VEIN OF A RABBITS EAR.
STRENGTH OF PROTECTING SOLUTION
0·71%
0·70%
0·69%
0·68%
0·67%
0·66%
0·65%
0·64%
0·63%
0·62%
0·61%
0·60%
0·59%
0·58%
0·57%
0·56%
0·55%
0·54%
0 6 12 18 24 30 36 42 48 54 60 66 72 78 84 90 96 102 108 114 120 126 HOURS.

were the most striking obtained throughout the investigation (Charts 6 and 7).

The rabbits showed practically no toxic effects, and are still in perfect health and under observation.

It will be seen that a marked increase of fragility results from the intra-venous injection of a specific hæmolytic serum. Thus, a rabbit which received 1 c.c. of immune hæmolytic serum showed an alteration in the fragility of its red cells from 0·54 per cent. NaCl to 0·71 per cent. NaCl within thirty hours.

It is intended to considerably extend the observations in this part of the subject.

St. Thomas's Hospital Medical School.

(UNIVERSITY OF LONDON.)

PROSPECTUS

FOR THE

YEAR COMMENCING OCTOBER, 1912.

1912 & 1913.

LONDON

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ST. THOMAS'S HOSPITAL. VIEW FROM RIVER.

St. Thomas's Hospital

MEDICAL SCHOOL.

The WINTER SESSION 1912-1913 will begin on Tuesday, October 1st, and end on March 29th.

The SUMMER SESSION will begin on Thursday, May 1st, and end on July 31st.

The Prizes will be distributed in the latter part of the Summer Session.

The Annual Dinner, in which all former and present Students are invited to join, will take place at the Hotel Cecil, on Tuesday, October 1st, at 7 for 7.30. The Chair will be taken by The Right Honourable The LORD MAYOR, SIR THOMAS BOOR CROSBY, M.D., F.R.C.S.

For information on all matters relating to the Medical School, Prizes, Scholarships, &c., application should be made to the Secretary to the Medical School, G. Q. ROBERTS, Esq., at the Hospital, Albert Embankment, S.E., personally 10 to 4 (Saturday, 10 to 1), or by letter.

The Dean will be glad to have a personal interview with Parents or Guardians of intending Students by appointment.

The Sub-Dean attends daily, except on Saturdays, between 1 and 2 p.m. to sign Schedules and interview Students or their friends with the view to giving advice on courses of study.

ST. THOMAS'S HOSPITAL.

The exact date of the foundation of the first Hospital of St. Thomas is unknown; but since it was dedicated to St. Thomas à Becket, who was canonised in 1172, and as the building was destroyed by fire in 1207 its origin may be fixed between those two dates. It was the property of the Church, and was situated within the precinct of the Priory of St. Mary Overie, in the Borough of Southwark. After the disaster of 1207 a temporary building was used so that the work of charity did not fail in the 21 years which elapsed before the new Hospital was ready for use. In 1228, the new building, in close proximity to the old, but on the other or eastern side of the road, received its charter, in which it is worth noting that it was described as "ye ancient Spitil." In the year 1538 the Hospital, still known as St. Thomas à Becket's Spitil, was surrendered to King Henry VIII. at the time of the general confiscation of church properties. Evidence of the good work which the old Hospital had been doing is clearly given by the fact that the necessity for its re-establishment soon made itself felt, and was satisfied only by the issue of a new charter with re-endowments and privileges in the year 1553 under the hand of King Edward VI. At the same time its dedication was transferred from St. Thomas à Becket to St. Thomas the Apostle.

From its foundation to the year 1862 the Hospital occupied its old site, but in that year the property was sold for the railway extension and the transfer to the present position was shortly after carried into effect.

The present buildings occupy an imposing position on the Surrey or south bank of the river, facing the Houses of Parliament, while their opposite aspect overlooks one of the poorest districts in London. Between the poverty-stricken streets of Lambeth and the Hospital there lies, however, a considerable tract of ground which was formerly attached to Lambeth Palace and was generously given for the use of the public by the Archbishop of Canterbury. Just beyond the extreme limit of the Hospital is the Palace itself. These few words will show how uniquely suited is the site to the character of the institution. On the one side it faces the wealth of the west, on the other the squalor of the east, while the river on the one side and the public park on the other provide the free access of light and air which are absolutely essential for the welfare of the sick. The foundation stone was laid by her late Majesty Queen Victoria in the year 1868, and the buildings were declared open by her on their completion in 1871. The cost was approximately £600,000, a large sum, certainly, but hardly excessive when it is realised that the frontage of the edifice is no less than 570 yards in length, and that the very advantages of its position rendered necessary an adequate architectural treatment which in fact was one of the conditions of the purchase of the site.

The Hospital, the first to be built in accordance with modern ideas, consists of a series of blocks separate from each other but connected by corridors open to the air on all sides. Between the blocks are

grassy quadrangles, and along the whole front is a broad terrace overlooking the river and overshadowed by trees, to which both patients and students have free access.

Six of the blocks are devoted to the use of patients, one other includes the Treasurer's Residence and the St. Thomas's Home for paying patients; one constitutes the Medical School. The wards, with the exception of four which are placed on the ground floor, occupy the first, second, and third floors. Each ward affords accommodation for 28 beds which are placed against the piers between the windows so as to secure thorough ventilation. In a small ward attached to each large one there are two beds for cases requiring special care or treatment.

The present hospital contains in all 581 beds which are distributed as follows. About 180 beds are appropriated to medical and 232 to surgical cases respectively. There are separate wards for the treatment of diseases peculiar to women (30 beds); of maternity cases (20 beds); of diseases of the eye (25 beds); of children under 6 years of age (34 beds); and for the reception of casualty cases. In one of the blocks, isolated from the rest of the establishment, there are 60 beds for infectious diseases.

The **Maternity Ward**, containing 21 beds, affords students full facilities for maternity training, under supervision, within the precincts of the hospital. This obviates any necessity for seeking instruction elsewhere, and fully prepares the student for the extern maternity practice of the hospital district. The revised regulations of the Examining Bodies can thus be fully complied with.

The space provided for each bed in the ordinary wards is upwards of 1,800 cubic feet, and in the block appropriated to infectious diseases about 2,500 cubic feet.

There are four chief Operation Theatres for the Surgical Wards. These have impervious floors, walls and seats, and are lighted and equipped in the most modern way. There is a complete set of anæsthetizing, sterilizing, dressing and recovery rooms attached to each pair of theatres, which with the new wards are supplied by the Plenum system with filtered air. Besides these there are five other fully-equipped theatres for operations in the various departments of the Hospital.

The recent extensive structural alterations have resulted in the addition of 30 beds to the Hospital, and of a Nurse's Home affording accommodation for 185 Nurses.

During the twelve months ending December 31st, 1911, the number of patients admitted into the Hospital amounted to **7,948**. In the same period, **19,979** out-patients have been treated, and in the Maternity Department, **1,165** women have been attended at their own homes. Casualties, to the number of **143,831** attendances, were treated during the same period.

The Department for **Out-patients** has been rearranged and is now well adapted both for the treatment of patients and for teaching purposes.

Large rooms for the use of the Physicians and Surgeons to Out-patients open directly on to the main waiting room. These are well lighted and ventilated, and are provided with ample sitting accommodation in raised tiers, so that large numbers of students can follow the methods of examination and treatment employed by the Physicians and Surgeons on duty.

There is also a series of rooms for dressing surgical cases and for the use of the various special departments, including a completely fitted **gymnasium** for the employment of **Physical Exercises** in treatment.

A complete Operation Theatre with modern fittings is attached to the Department for the sole use of the Out-patient Staff and their Assistants and of the various Special Departments.

The **Casualty Department** comprises a spacious receiving hall which runs the whole length of the department, and from which, on the one side, open out sorting and waiting rooms, whilst on the other are a number of smaller rooms for the examination and treatment of patients.

Isolation rooms for infectious cases are placed outside the lodge door.

The whole department is tiled, efficiently lighted and fitted throughout on the most modern lines. The ventilation is on the Plenum system. In connection with it there are an Accident Ward of 20 beds for the reception of urgent male cases, with a small but complete operation theatre, and two isolation rooms.

The **Ophthalmic Department** comprises a large and light Consulting Room for out-patients, a well-arranged dark room for Ophthalmoscopic examinations, and a small, fully-equipped Operating Theatre.

The **Röntgen Ray Department** has proved of such value to the Hospital that again (1912) it has been found necessary to considerably increase its accommodation and at the same time widen its scope so as to include the latest applications of electricity both for diagnosis and treatment. The department has a number of separate rooms for the application of the Finsen light treatment of lupus and other skin diseases, for electric light baths, electric water baths, and for the use of high frequency and high tension currents.

The **Hospital Laboratories** are are situate on the east front. They have recently been extended and a full description of them will be found on page 20.

The **Clinical Lecture Theatre** is intended for the delivery of Clinical Lectures and Demonstrations. Its central position in the Hospital makes it possible to illustrate the lectures by patients brought from the wards and out-patient rooms. Provision is made for the exhibition of lantern slides. The Theatre has also been specially fitted for ophthalmological, laryngological, and microscopical demonstrations. Throughout the academical year Clinical Lectures are delivered here on Medicine, Surgery, and the various special branches of study (see p. 23).

ADVICE TO STUDENTS ABOUT TO ENTER THE MEDICAL PROFESSION.

Registration.*—The commencement of Medical Study cannot be registered at the Office of the General Medical Council until the Student has attained the age of 16 years and has passed a Preliminary Examination in the subjects of General Education as specified in the following list :

(1) English ; (2) Latin ; (3) Arithmetic, Algebra, and Euclid—Books I. II., III. ; (4) Either Greek, or any Modern Language.

Preliminary Examinations.—A student who has not passed such an examination is strongly recommended to pass the Matriculation of the University of London, and is advised to take Chemistry in addition to the subjects named in the foregoing list. Changes have recently been made in this examination by which the number of compulsory subjects is reduced and at the same time the range of choice widened. It possesses the great advantage of forming the first step on the road to a medical *degree*, the importance of which can hardly be over estimated. The regulations may be obtained from the Registrar, University of London, South Kensington, S.W.

For the purpose of registration simply the Professional Preliminary Examination of the College of Preceptors is also recognised. Particulars may be obtained from the Secretary, College of Preceptors, Bloomsbury Square, W.C.

Certificates of Graduation, Matriculation, and the Local Examinations of British and Colonial Universities are accepted by the General Medical Council provided that the above-mentioned subjects be shown to have been included at one and the same time.

A student cannot be admitted to the Final Examinations until he is 21 years of age and has completed five years' study.

To students who commence their medical education in London, two alternative curricula are open : the one leads up to the Diploma of the Conjoint Board, the other to the Degrees of the University of London. The courses of study are nearly equal in length, and the arrangement of work practically the same. For the London University course, however, a higher standard is demanded, particularly in the earlier subjects of the curriculum, than for the examinations of the Conjoint Board, and while the general scheme of study in the Medical School at St. Thomas's is adapted for either career certain special classes are provided (see pages 16, 17, 18 and 27,) to meet these greater requirements. The majority of medical students in London take the Diploma of the Conjoint Board even if they are members of a University as well. In fact it is wise for all to do this as the diploma is a stepping stone to certain higher qualifications.

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* The Regulations of the General Medical Council with regard to Registration may be obtained from Messrs. Spottiswoode & Co., 54, Gracechurch Street, London, E.C.

CURRICULUM FOR THE UNIVERSITY OF LONDON AND FOR THE DIPLOMA OF THE CONJOINT BOARD.

First Winter Session.

Lectures. Biology, Chemistry, Physics, with Practical Work in each subject.

Examinations. Part III. (Elementary Biology) of the First Professional Examination of the Conjoint Board in March.

First Summer Session.

Lectures. Biology, Chemistry, Physics, with Practical Work in each subject.

Examinations. First Examination for Medical Degrees (Univ. Lond.), in July, or Parts I. and II. (Chemistry and Physics), of the "First Conjoint" in July.

Second Winter Session.

Lectures. Anatomy, Physiology, Anatomical Demonstrations and Dissections. Organic and Applied Chemistry for the Second Examination for Medical Degrees, Part I.

Examinations. "Vivâ voce Sessional" in December (see p. 35).

Second Examination for Medical Degrees (Univ. Lond.) (Part I.) in March.

Second Summer Session.

Lectures. Histology with Practical Work, Dissections, Organic and Applied Chemistry (for July Examination, if not already passed), Demonstrations in Practical Pharmacy, Practical Instruction in Pharmacy.

Examinations. "Sessional" (see p. 35).

NOTE.—Students are eligible to present themselves for the "Second Conjoint" on the completion of twelve months' study of Anatomy and Physiology, subsequent to passing in two of the three parts of the First Examination (*i.e.*, Physics, Chemistry, Biology). They are strongly advised to take this examination at the earliest date possible, since the Final Examination cannot be undertaken until two years after passing the "Second Conjoint."

Third Winter Session.

Lectures. Anatomy and Physiology with Demonstrations and Dissections, Practical and Chemical Physiology. Pharmacology with Demonstrations.

Examinations. "Sessional" in December and in March (see p. 35).

Anatomy and Physiology of "Second Conjoint" in January or April.

Second Examination for Medical Degrees (Univ. Lond.) (Part II.) in March.

Third Summer Session.

Hospital Practice, Medical and Surgical, with Clerkship or Dressership. Post-Mortem Clerkship and Clerkship in Pathological Laboratory should be held at the same time as the In-patient Medical Clerkship.

Lectures. Pathology, including Practical instruction in Bacteriology; Forensic Medicine; Midwifery; and such of the subjects of the Fourth Summer Session as time and circumstances permit.

The course of instruction in Practical Medicine must be attended by Clinical Clerks, and the course of Elementary Practical Obstetrics by Clerks in the Gynæcological Department.

Examinations. Part II. (Pharmacy of "First Conjoint" if not already passed.

Second Examination for Medical Degrees (Univ. Lond.) (Part II.) in July if not already passed.

Fourth Winter Session.

Lectures. Hospital Practice, Medical and Surgical.

Medicine, Surgery, Pathology, Practical Surgery, Pharmacology, Applied Anatomy.

Clinical Clerkship with Clerkship in the Post-Mortem Room, or Pathological Laboratory (if not already held); or Dressership.

Fourth Summer Session.

Hospital Practice, Medical and Surgical, with Clerkship or Dressership. Attendance at a recognised Fever Hospital.

Pathology (continued) including Practical instruction in Bacteriology, Forensic Medicine, Midwifery, and such of the subjects of the Fifth Summer Session as have not been completed. Lectures.

Fifth Winter Session.

Hospital Practice, Medical, Surgical, the Special Departments, and attendance at Post-mortem Examinations. Clerkship or Dressership in Special Departments. Instruction in Vaccination (Fee, one guinea and a half, p. 24).

Maternity Cases may be attended by Students who have passed the Second Examination for Medical Degrees, or the "Second Conjoint," who have attended the Lectures on Midwifery and a course of Practical Obstetrics, and who have acted as Clerks and Dressers. Maternity cases are attended in the Maternity Ward in conjunction with Clerking in the Ward for Diseases of Women. One month is spent in the Maternity Ward, and afterwards Maternity Cases are conducted for a period of two weeks in the patients' own homes in the out-district under supervision of the Obstetric House Physicians. N.B.—Clerks in the Post-Mortem Room are not allowed to attend Maternity Cases.

Pathology (if not taken in fourth winter); Medicine, Surgery, Obstetric Demonstrations; Diseases of Women: Diseases of the Eye. Clinical Lectures on Medicine and Surgery. Applied Anatomy. Lectures.

School Examinations in Medicine, Surgery, Midwifery, Pathology, Pharmacology, Forensic Medicine (including Insanity) and Public Health (see p. 35). Examinations.

Fifth Summer Session.

Hospital Practice, Medical and Surgical, and Special Departments. Lectures.

Midwifery, Mental Disease, Tropical Diseases, Public Health, Diseases of the Eye, Clinical Medicine, Clinical Surgery. Attendance at a Fever Hospital (if not already completed).

Tutorial Classes in Medicine, in Surgery (including operations upon the Dead Subject), and in Midwifery.

All students are required to register their names in the Secretary's office at the commencement of each session. Attendance at lectures, demonstrations, and clinical work is also registered.

Students who have passed the "Second Conjoint," and have attended Lectures on Midwifery, and a Course of Elementary Practical Obstetrics, may enter their names for the Rota for Clerkships in the Gynaecological Ward, the Maternity Ward, and the Out-patient Department, but cannot do so whilst holding a Post-Mortem Clerkship or before they have acted as Clinical Clerks and Dressers. Examinations.

No Student is allowed to complete the Third Examination of the "Conjoint Board" until at least two years after passing the Second Examination, and five Winter and five Summer Sessions from the date of passing the Preliminary Examination.

No Candidate will be admitted to the M.B., B.S. Examination, Univ. Lond., unless he has passed in Anatomy and Physiology three years previously, and 3½ years have elapsed since matriculation, nor until the course of Study prescribed for the fourth and fifth years has been completed.

UNIVERSITY OF LONDON.

The duration of the course of study for the Qualifying Degree is 5½ years. As in the case of the Conjoint Board a year must be devoted to preparation for the First Examination for Medical Degrees (Inorganic Chemistry, Physics and General Biology), but Internal Students who matriculate in January may, under certain circumstances, enter for the examination on the lapse of seven months, *i.e.* in July.

For special courses, see page 27.

The next 18 months is devoted to study for the Second Examination for Medical Degrees, of which Part I (Organic and Applied Chemistry) can be passed not less than six months after the First Examination. Part II (Anatomy, Physiology and Pharmacology, including Pharmacy and Materia Medica) is to be passed after passing Part I, and not less than 18 months after completing the First Examination (for special courses see page 27). The Third Examination for the Medical Degrees (M.B., B.S.) can be taken not less than 3* years after passing in Anatomy and Physiology at the Second Examination, Part II, and not less than 5½ years after matriculation.

* For certain exceptions see University Regulations.

UNIVERSITIES OF OXFORD AND CAMBRIDGE.

As a rule the Students from the older Universities join the Medical School at the commencement of their fourth year, that is, after they have passed an Examination corresponding to the Second Professional of the Conjoint Board, or the Second Examination for Medical Degrees of the London University. At the end of the fourth year such Students have to present themselves for an Examination in General Pathology and Pharmacology, for which the course of study in the Medical School is specially adapted (see p. 18). Preparation for this Examination is carried on concurrently with clinical work in the Hospital Wards or Out-patient Rooms. The Final Examination for the M.B. degree corresponds in all essentials to that for the London University degree, but Cambridge Students have in addition to write a Thesis or Essay on some medical subject.

Students intending to prepare for **University Degrees and other higher Examinations** should apply to the Sub-Dean for any further information relating thereto. (For Special Courses for these Examinations see p. 27. For University Tutors see p. 13.)

During the fourth and fifth years, the greater part of the time can, and should, be given to the practical study of disease in the Wards, Out-Patient Departments, including the Special Departments (p. 23), and Post-Mortem Room, but Students are reminded that such courses of lectures as relate to Final Examinations may be with advantage re-attended.

Students when qualified should use every effort to obtain one or more of the senior appointments open to them, especially those of House Physician, House Surgeon, Obstetric House Physician, and Casualty Officer. These and other appointments, of which details are given at p. 33, afford free opportunities for obtaining practical professional knowledge which cannot be estimated too highly.

All Students are required by the Governors to conform to the Regulations of the Hospital and Medical School, and the School Council is empowered, with the approval of the Treasurer to suspend or remove a Student at any time for adequate reason.

N.B.—The Regulations for the Sessional Examinations and Prizes will be found on p. 35.

Medical and Surgical Officers of the Hospital.

Consulting Physicians.—JOHN HARLEY, M.D. Lond., S. J. SHARKEY, M.A., M.D. Oxon. T. D. ACLAND, M.A., M.D., Oxon.
Consulting Surgeons.—SYDNEY JONES, M.B. Lond., BERNARD PITTS, M.A.,
Consulting Obstetric Physician.—H. GERVIS, M.D. Lond. [M.C. Cantab.
Consulting Ophthalmic Surgeons.—R. LIEBREICH; E. NETTLESHIP, F.R.S.
Consulting Anæsthetist.—WALTER TYRRELL.
Consulting Dentist.—C. E. TRUMAN, M.A. Cantab.

Physicians.	Surgeons.
H. P. HAWKINS, M.A., M.D. Oxon.	G. H. MAKINS, C.B.
H. W. G. MACKENZIE. M.A., M.D. Cantab.	W. H. BATTLE.
H. G. TURNEY, M.A., M.D. Oxon.	C. A. BALLANCE, M.S. Lond., M.V.O.
J. J. PERKINS, M.A., M.B. Cantab.	H. B. ROBINSON, M.S. Lond.

In Charge of Out Patients.

C. R. BOX, B.Sc., M.D., B.S. Lond.	CUTHBERT S. WALLACE, B.S. Lond.
A. E. RUSSELL, M.D., B.S. Lond.	E. M. CORNER, M.A., M.C. Cantab.
E. F. BUZZARD, M.A., M.D., Oxon.	P. W. G. SARGENT, M.A., M.B., B.C.
M. A. CASSIDY, M.A., M.D., Cantab.	C. A. R. NITCH, M.S. Lond. [Cantab.

SPECIAL DEPARTMENTS.

Obstetric.—W. W. H. TATE, M.D., Lond.; J. S. FAIRBAIRN, M.A., M.B., B.Ch. Oxon. Out Patients.—J. P. HEDLEY, M.A., M.B., M.C. Cantab.
Diseases of Children (medical).—C. R. BOX, B.Sc., M.D., B.S. Lond.
Diseases of Children (surgical).—C.A.R. NITCH, M.S. Lond.
Diseases of Skin.—E. STAINER, M.A.,M.D. Oxon.
Electro-Diagnosis.— H. G. TURNEY, M.A., M.D. Oxon. [Lond.
Mental Diseases.—R. PERCY SMITH, M.D.
Ophthalmic.—J. B. LAWFORD, F.R.C.S.; J. H. FISHER, B.S. Lond. [F.R.C.S,
Diseases of Throat.—W. G. HOWARTH,
Diseases of Ear.—C. A. BALLANCE. M.S. Lond.; Out Patients.—H. J. MARRIAGE, B.S. Lond.
Dental.—R. MCKAY, L.D.S.

Curator of the Museum and Pathologist.
S. G. SHATTOCK, F.R.C.S.
Director of the Hospital Laboratories and Bacteriologist to the Hospital.
L. S. DUDGEON, F.R.C.P. Lond.
Demonstrators of Morbid Anatomy.
C. R. BOX, M.D., B.S., B.Sc. Lond. R. C. WINGFIELD, B.A., M.B., B.Ch. Oxon.
Superintendent of the X Ray Department.
A. D. REID, M.R.C.S., L.R.C.P.
Anæsthetists
H. LOW, M.A., M.B., B.C. Cantab. E. W. HEDLEY, M.A., M.D., B.C. Cantab.
Z. MENNELL, M.B. Lond. A. B. HOWITT, M.A., M.D., B.C. Cantab.
E. V. DUNKLEY, M.D. Lond.
Superintendent of the Physical Exercises Department.
R. T. TIMBERG, M.R.C.S., L.R.C.P.
Consulting Chemist. Pharmaceutist.
H. R. LE SUEUR, D.Sc. Lond., F.I.C. J. A. JENNINGS, Ph.C.
Resident Assistant Physician. Resident Assistant Surgeon.
L. S. T. BURRELL, M.A., M.B., B.C. Cantab. C. M. PAGE, M.S., Lond., F.R.C.S.
Registrars

Medical.	*Surgical.*	*Obstetric.*
O. L. V. S. DE WESSELOW, B.A., M.B., B.Ch. Oxon.	B. C. MAYBURY, M.B., B.S. Lond., F.R.C.S.	J. M. WYATT, M.B., B.S. Lond., F.R.C.S.

Ophthalmic.—A. C. HUDSON, M.D. Cantab., F.R.C.S.
Dean of the School. Sub-Dean.
E. STAINER, M.A., M.D. Oxon. C. R. BOX, M.D., B.S., B.Sc. Lond.
Librarian.
G. RENDLE, M.R.C.S.
Tutors.

Oxford.	*Cambridge.*	*London.*
J. S FAIRBAIRN, M.A., M.B., B.Ch. Oxon.	P. W. G. SARGENT, M.A., M.B., B.C. Cantab.	C. R. BOX, M.D., B.S., B.Sc. Lond.

Secretary to the School.
G. Q. ROBERTS, M.A. Oxon.

LECTURERS AND DEMONSTRATORS.

LECTURERS.

Biology	Dr. R. R. Gates.
Chemistry and Practical Chemistry ...	Dr. Le Sueur.
Physics	Mr. J. H. Brinkworth.
Descriptive Anatomy	Mr. Parsons.
General Anatomy and Physiology ...	Dr. J. Mellanby and (Assistant Lecturer) Mr. A. Mavrogordato.
Practical Physiology and Histology ...	
Diseases of Women	Dr. Tate.
Midwifery	Dr. Fairbairn.
Practical and Manipulative Surgery...	Mr. Wallace.
Applied Anatomy...	Dr. Box.
Medicine...	Dr. Mackenzie and Dr. Perkins.
Surgery	Mr. Battle and Mr. Robinson.
Pathology and Bacteriology	Mr. Shattock and Mr. Dudgeon.
Forensic Medicine and Toxicology ...	Dr. E. Smith.
Pharmacology and Therapeutics ...	Prof. Dixon.
Diseases of the Eye	Mr. Lawford and Mr. Fisher
Tropical Diseases...	Dr. Sandwith.
Mental Diseases	Dr. Percy Smith.
Public Health and Sanitary Science...	Prof. Simpson.
Clinical Medicine...	The Physicians.
„ *Gynæcology*	Dr. Tate.
Midwifery	Dr. Fairbairn.
Clinical Surgery	The Surgeons.
„ „ *Ophthalmic*	Mr. Lawford and Mr. Fisher.
Comparative Anatomy...	Mr. Parsons.
Anæsthetics	Dr. Low.

TEACHERS AND DEMONSTRATORS.

Chemistry and Practical Chemistry ...	Dr. Le Sueur and Dr. Haas.
Practical Pharmacy	Mr. J. A. Jennings.
Practical Anatomy	Mr. Parsons and Mr. W. G. Howarth.
Physiology and Practical Physiology...	Dr. J. Mellanby, Mr. Mavrogordato, and Mr. S. Ritson.
Toxicology	Dr. Haas.
Pharmacology	Dr. E. Mellanby.
Practical Medicine	Dr. Box, Dr. Russell, Dr. Buzzard and Dr. Cassidy.
Practical and Manipulative Surgery...	Mr. Wallace and Mr. Corner.
Operative Surgery	Mr. Robinson, Mr. Wallace and Mr. Corner.
Practical Obstetrics and Gynæcology...	Dr. Fairbairn, Dr. Hedley and Dr. Wyatt.
Electro-Therapeutics	Mr. Reid.
Morbid Anatomy	Dr. Box and Dr. Wingfield.
Morbid Histology and Bacteriology ...	Mr. Shattock and Mr. Dudgeon.
Clinical Pathology	Dr. Weir.
Diseases of the Children	Dr. Box and Mr. Nitch.
„ „ *Throat*...	Mr. Howarth.
„ „ *Skin*	Dr. Stainer.
„ „ *Ear*	Mr. Marriage.
„ „ *Teeth*	Mr. McKay.
Vaccination	Dr. Cope.
Physical Exercises	Mr. Timberg.

THE MATERNITY WARD.

THE MEDICAL SCHOOL.

The School buildings, isolated by a large quadrangle from the Hospital, stand at its southern extremity, between the river and the gardens of Lambeth Palace.

THE LIBRARY AND READING ROOM.

Librarian—G. RENDLE, Esq.

The Library, which overlooks the river, is quiet, spacious and well ventilated. It has been recently completely re-arranged and re-catalogued. It contains a valuable collection of standard works, both old and new. A supply of current text-books is kept, so that a student has every inducement to fully occupy his time while in the Medical School. Many medical and scientific periodicals are taken in.

THE MUSEUMS.

Curator—S. G. SHATTOCK, Esq., F.R.C.S

The Pathological Collection contains above 3,000 preparations, and illustrates all the morbid lesions of importance met with in the various organs of the body. The present descriptive catalogue has been entirely re-written by Mr. Shattock.

The Collection includes many specimens of historical interest, such, *e.g.*, as those used by Sir A. Cooper to illustrate his works on Dislocations and Fractures, on Hernia, and diseases of the Testis; as well as two preparations showing the result of ligature of the Abdominal Aorta, and Mr. Travers's preparations exhibiting the natural process of repair of Injuries of the Intestines, and results of the experimental ligature of Arteries. The section of Fractures contains numerous examples of gun-shot injuries, obtained from cases under the care of Sir William MacCormac during the Franco-German War (1870).

From the General Collection a Type Series has been selected to illustrate Medical, Surgical, and Gynæcological Pathology. This series of Specimens is displayed on the ground floor of the Museum, and is furnished with a specially prepared Card Catalogue.

The Marble Bust of Morgagni in the Museum was the gift of an Italian Committee, which included the chief Professors at the various Italian Universities. It was formally presented to the Hospital by the Italian Ambassador in October, 1899.

The Collection of Comparative Anatomy comprises about 400 dissected Preparations, and in addition an equal number of osteological specimens. A large proportion of these dissections were made by Sir A. Cooper, to illustrate his Lectures, when Professor of Comparative Anatomy to the Royal College of Surgeons.

A catalogue of this Collection has been drawn up by Mr. F. G. Parsons.

The Anatomical Museum in the Anatomical Department contains a large number of dissected Preparations, illustrating the individual Organs, and in addition a series of elaborate dissections.

The Materia Medica Museum contains a complete collection of the inorganic and organic substances included in the British Pharmacopœia; all these are named and numbered. A second collection of the chief medicinal substances is placed in drawers and is freely accessible to students.

The Collection of Chemical and Mineralogical Specimens is under the superintendence of Dr. Le Sueur. The majority of the specimens were presented by the late Dr. Bernays.

The Museums are open daily from 9 a.m. till 5 p.m.

LECTURES, CLASSES, & DEMONSTRATIONS.

A complete list of Lecturers and Demonstrators, p. 14.
Time-table of days and hours of Lectures, &c., p. 25, 26, 27.
For Fees, see pp. 36, 37.
The attendance on all courses of Lectures is registered.

BIOLOGY (BOTANY AND ZOOLOGY.)

DR. GATES.

THE BIOLOGICAL LABORATORY is in the West Wing, and is admirably adapted to its purpose.

Courses of Lectures, including Practical Work, are held during the Winter and Summer Sessions in preparation for the First Examination for Medical Degrees, Univ. Lond. and for other University Examinations (see pp. 25, 26, 27).

A six months' practical course to meet the requirements of the "Conjoint Board" is held from October to March, and a revision class from May to July.

CHEMISTRY.

DR. LE SUEUR.

THE CHEMICAL DEPARTMENT is complete in itself. In addition to large laboratories for class purposes there are private ones for advanced and research work. The department has its own lecture theatre, opening out of one of the laboratories.

A systematic Course of LECTURES on Inorganic, Organic and Physical Chemistry is given during the Winter and Summer Sessions. These lectures are fully illustrated by experiments, and are supplemented by a course of tutorial classes held by Dr. Haas.

Courses of practical instruction in Chemistry as required for the First and Second Examinations for Medical Degrees (Univ. Lond.), and for the Examinations of the Conjoint Board, extend over the Winter and Summer Sessions. (See pp. 25, 26, 27.)

A special course of Practical Instruction is given in the Laboratory to Candidates for Diplomas in Public Health.

Arrangements may be made for additional Practical Work (Elementary and Advanced) in the Chemical Laboratory at fees which may be ascertained from the Medical Secretary.

PHYSICS.

MR. J. H. BRINKWORTH.

There is a SPECIAL PHYSICS LABORATORY which is well provided with apparatus for practical work.

Courses of Lectures, fully illustrated by experiment, are given during the Winter and Summer sessions, and are especially adapted to the requirements of the First Examination for Medical Degrees (Univ. Lond.), and the first Professional Examination of the Conjoint Board. (See pp. 25, 26, 27.)

The lectures are supplemented by Tutorial and Practical Classes.

ANATOMY.

MR. PARSONS.

THE DISSECTING ROOM which is unusually large, is well lighted and ventilated. Private rooms are provided for the Prosectors and Demonstrators.

A LECTURE THEATRE, with seating accommodation for 200 Students renders the department complete.

A valuable collection of Dissected Specimens, Anatomical Models, Diagrams, Illustrations and Stereoscopic Photographs, which form the contents of the Anatomical Museum, are available for the purposes of study.

LECTURES.—A six months' course, consisting of five lectures a week, is given during the Winter Session. As certain portions of the subject are dealt with more fully in alternate years, students are required to attend the course both in their second and third years.

The lectures are illustrated by fresh dissections and preparations.

TUTORIAL CLASSES, conducted partly by examination, partly by demonstration, are held daily during the Sessions.

A Course of special demonstrations of Surface Anatomy is given during the Summer Session, and, during the Winter Session, a course of lectures on the Application of Anatomy to Medicine and Surgery.

PRACTICAL.—During both Winter and Summer Sessions the dissecting room is open for the use of students, and the demonstrators attend daily. A number of stock preparations are displayed in the room, and the others are preserved for use in the tutorial classes.

Tutorial classes are held prior to the January, March and July examinations of the "Conjoint Board," which all candidates are allowed to attend. A verbal test examination is held three weeks prior to the examinations, at which candidates must satisfy the teachers as to their knowledge before obtaining the necessary signatures to their schedules.

Special classes are held by the lecturer and demonstrators for the various University Examinations, as well as for the Primary Fellowship of the College of Surgeons in May and November. For the November Examination classes begin in July. No additional fee for these classes is charged to Students paying the Annual Composition Fee (see pp. 36, 37).

COMPARATIVE ANATOMY.

MR. PARSONS.

A course of lectures, especially intended for the primary examination for the Fellowship of the College of Surgeons and for the B.Sc. (Hon.) degree in Anatomy and Morphology of the London University, is given from January to March.

APPLIED ANATOMY.

DR. BOX.

A course of lectures on Applied Anatomy is given during the first half of the Winter Session. It is illustrated by Lantern Slides and Models, and may be attended by Students in their third, fourth, or fifth years.

PHYSIOLOGY.

DR. J. MELLANBY.

THE PHYSIOLOGICAL DEPARTMENT is constructed on similar lines to the chemical, with large class laboratories, research laboratories and full equipment in the way of apparatus.

LECTURES.—A systematic course of lectures is given throughout the Winter and Summer Sessions. As certain portions of the subject are dealt with more fully in some years than in others Students are required to attend the course both in the second and third years.

ELEMENTARY PRACTICAL PHYSIOLOGY.—An elementary practical class for second year Students is held in the first half of the Winter Session. An elementary course of Chemical Physiology, also for second year Students, is given in the second half of the Winter Session.

HISTOLOGY.—A practical class in Histology is held three mornings a week during the Summer Session, and is attended by second year Students. Each Student is practically instructed in the methods of preparing histological specimens.

Each Student for the purposes of this class must provide himself with a microscope, slides and cover glasses, drawing-book and pencils, box to hold twelve dozen specimens, forceps, scalpel, scissors, section-lifter, mounted needles, and six watch glasses.

A table, cupboard and drawer, chemicals, staining and mounting fluids, &c., are provided for him. A deposit of 5*s.* is charged for the use of a key and apparatus, and this is repaid at the end of the course if both are returned in proper order.

TUTORIAL CLASSES in Physiology are held by the Demonstrators prior to the January, April, and July examinations of the "Conjoint Board."

ADVANCED PRACTICAL PHYSIOLOGY.—A *Class* in advanced *practical* Physiology is held twice a week from October to March and consists of two parts. The first half of the course is devoted to the use and study of those instruments and experiments which are fitted to class work. The second half is a course of advanced Chemical Physiology. During this class, demonstrations are given of many experiments which cannot be carried out by the Students themselves. This class is intended for those preparing for University Examinations (Cambridge, London, Oxford), or for the Fellowship of the College of Surgeons

Special Tutorial Classes are held by the Lecturer and Demonstrators for the various University Examinations, as well as for the Primary Fellowship of the College of Surgeons in May and November. For the November Examination classes begin in July. No additional fee for these classes is charged to Students paying the Annual Composition Fee (see pp. 36, 37).

PHARMACY, PHARMACOLOGY, AND THERAPEUTICS.

PROF. DIXON AND MR. JENNINGS.

THE MATERIA MEDICA MUSEUM contains a complete collection of the inorganic and organic substances included in the British Pharmacopœia ; all these are named and numbered. A second collection of the chief medicinal substances is placed in drawers and is freely accessible to students.

Lectures and Demonstrations are given during the Winter Session, the course being specially adapted to the requirements of candidates for the examinations of the Universities of London, Oxford and Cambridge, and the "Conjoint Board."

During the Summer Session, Dr. Dixon, who lectures at St. Thomas's in the winter by arrangement with the authorities at King's College, delivers a duplicate course of lectures at the latter Institution. This Summer Course is free to St. Thomas's Students who may require it.

Demonstrations of Materia Medica are given in the Materia Medica Museum by Mr. Jennings and two assistants.

PRACTICAL PHARMACY.—Instruction in Practical Pharmacy and Dispensing (see p. 36) as required by the Universities of London, Oxford, and Cambridge and the "Conjoint Board," is given by the Hospital Pharmaceutist, Mr. Jennings. In addition, special classes are held in Pharmaceutical Chemistry to meet the requirements of the first M.B. of Oxford (Practical Exam. in Materia Medica and Pharmacology) and the third M.B. of Cambridge.

DISEASES OF WOMEN AND MIDWIFERY.

DR. TATE AND DR. FAIRBAIRN.

Dr. Tate delivers a course of Lectures on Diseases of Women during the second half of the Winter Session.

A systematic course of lectures on Midwifery is delivered by Dr. Fairbairn during the Summer Session, embracing the physiology and pathology of pregnancy, labour, and the puerperal state, preceded by an account of the anatomy and development of the female pelvis, and of the placenta and fœtal membranes.

A course of Obstetric Demonstrations on the model is given three times a year by Dr. Hedley.

For Practical Midwifery (see pp. 23 and 24).

Tutorial Classes are held prior to the January, April, and July Examinations of the "Conjoint Board." (See p. 22.)

CLASSES FOR CLERKS AND DRESSERS.

An elementary course of practical instruction in the means of physical diagnosis is held three times a year; no student can be appointed Clinical Clerk unless he attends this class, or an equivalent course elsewhere. Instruction is given in the principles and method of examination of the circulatory, respiratory, urinary, digestive, and nervous systems.

Demonstrations in Surgical Technique and Bandaging are given by the Surgical Registrar to the surgical dressers. No dresser can be appointed unless he attends this Class.

MEDICINE.

DR. MACKENZIE AND DR. PERKINS.

A systematic course of lectures on the Principles and Practice of Medicine is given during the Winter Session. The subject being too extensive for a six months' course, students should attend during two Winter Sessions.

Clinical lectures on Medicine are given once a week throughout the Academic year, by the physicians to the Hospital in rotation. The subject of each Lecture is advertised beforehand in the Hospital and Medical School.

Tutorial Classes are held prior to the January, April, and July Examinations of the "Conjoint Board." (See p. 22.)

SURGERY.

MR. BATTLE AND MR. ROBINSON.

A systematic course of lectures on General and Special Surgery is given three times weekly throughout the Winter Session. The subject, being too extensive for a six months' course, is spread over more than one Winter Session.

Clinical lectures on Surgery are given once a week throughout the Academic year, by the surgeons to the Hospital in rotation. The subject chosen for each lecture is advertised beforehand in the Hospital and Medical School.

Special classes are held before each Examination for the Final F.R.C.S. (See p. 37.)

Tutorial classes are held prior to the January, April, and July examinations of the "Conjoint Board." These include general surgery, operative surgery, and surgical anatomy, by Members of the Surgical Staff; and surgical pathology, by Mr. Shattock (see p. 22).

PRACTICAL SURGERY.

MR. WALLACE AND MR. CORNER.

During the Winter Session a class is held once a week, providing special instruction for students holding Out-patient dresserships. The first half of the course comprises the use of trusses and splints, the treatment of wounds and hæmorrhage, and the demonstration of surgical landmarks on the living model.

The second half includes the diagnosis and treatment of fractures and dislocations.

The teachers of practical surgery are assisted by Demonstrators, who supervise the students after each lecture in the various manipulations on the living models provided.

OPERATIVE SURGERY.

Classes are held by Mr. Corner previous to the January, April, and July examinations of the "Conjoint Board." The operations are performed by the students, subjects being provided at the expense of the school.

Special classes in Advanced Operative Surgery commence on the third Monday in October, and on the second Monday in April, for students preparing for the higher examinations. (See p. 37.) The classes meet daily at 4 p.m. They are held by Mr. Robinson and Mr. Wallace.

PATHOLOGY AND BACTERIOLOGY.

Lecturers on General Pathology—
S. G. Shattock, F.R.C.S. and L. S. Dudgeon, F.R.C.P.

Lecturer on Special Pathology—
L. S. Dudgeon, F.R.C.P.

Lecturer on Bacteriology—
S. G. Shattock, F.R.C.S.

Demonstrators of Morbid Anatomy—
C. R. Box, M.D., F.R.C.P. and R. C. Wingfield, B.A., M.B., B.Ch.

Demonstrator of Chemical Pathology—
H. B. Weir, M.A., M.B., B.C.

The Pathological Department includes two large suites which are under the supervision of the Director of Hospital Laboratories.

Of these Laboratories one occupies the West Wing of the Medical School Buildings. It is known as the **Hospital Laboratory of Pathology**, and was established by the Governors for extended investigations of the material derived from the post-mortem room of the Hospital. Attached to the main Laboratory are subsidiary work-rooms, and the whole is completely equipped for all purposes of investigation.

In this suite of Laboratories and in the Class Laboratory above Students are practically instructed in pathological histology and elementary bacteriology.

A second and very extensive range of Laboratories is situate on the East face of the Hospital itself. These, which are of more recent construction, comprise the following units :—

1. **The Louis Jenner Laboratory of Clinical Pathology**, which was established in 1897 and bears the name of its first Superintendent. This is utilised for the purpose of such pathological investigations as may throw light on the condition of patients in the wards.

2. **The Vaccine Laboratories**, which are an extension of the foregoing and are utilised for the purposes of vaccine treatment both of in and out-patients.

3. **The Laboratory of Chemical Pathology**, instituted in the year 1912 and devoted to the investigation of the chemical phenomena of diseased conditions.

4. **The Research Laboratory**, which is worked under the control of a Research Committee and is devoted to the purposes of Research by Members of the Staff, with the help of Research Assistants. The object of this Laboratory is to exploit the scientific side of Medicine and further the scientific education of the Students.

The Post Mortem Room and Mortuary are provided with Refrigerating Apparatus and ventilated by the electric fan.

The Pathological Collection contains above 3,000 preparations, and illustrates all the morbid lesions of importance met with in the various organs of the body. The preparations are selected, arranged and catalogued with the object of enabling the student to become familiar with the essentials of Pathological Anatomy.

The course of instruction in Pathology consists of the following Lectures, Demonstrations and Practical Classes :—

1. Lectures on General Pathology given twice a week during the Winter Session by Mr. Shattock and Mr. Dudgeon.

2. Lectures on Morbid Anatomy, illustrated by specimens, given once a week during both Winter and Summer Sessions by Mr. Dudgeon.

3. Demonstrations of Pathological Histology given during the Winter Session by Mr. Shattock.

4. A course of Practical Bacteriology held during the Summer Session by Mr. Shattock.

5. A clerkship for three months in the Post-mortem room.

6. A clerkship for three months in the Pathological Laboratory attached to the Post-mortem room (5 and 6 may run concurrently).

7. A further clerkship for advanced Students in the Clinical Laboratory of the Hospital, so far as accommodation may permit.

8. Two senior clerkships in Practical Bacteriology and Vaccine Therapy. Appointments to these may be made every three months.

9. A series of Demonstrations of Clinical Pathology given by the Demonstrator three times a year, *i.e.* in each half of the Winter Session, and also in the Summer Session.

10. Demonstrations of Morbid Anatomy, for the purpose of revision, before the final examinations.

POST-MORTEM EXAMINATIONS are performed daily at 2 p.m., except Saturdays when they are at 10 a.m. Students are appointed to act as clerks, and make the examinations under the supervision of the pathologists. Arrangements are made whereby Students are enabled to follow the post-mortem work of the Hospital without interfering with their clinical work in the Wards and Out-patient Department.

N.B.—For the Diploma of Public Health the Bacteriological Course is followed by a more detailed study of such Pathogenic organisms as those of Typhoid, Cholera and Diphtheria; the examination of infected animals; and the Bacterial examination of water, air, and soil.

FORENSIC MEDICINE AND TOXICOLOGY.

DR. EDWIN. SMITH.

Demonstrator of Toxicology—Dr. Haas.

A three months' course of lectures is given during the Summer Session by Dr. E. Smith.

The lectures cover the synopses of the various Examining Boards, and are supplemented in the toxicological section by demonstrations by Dr. Haas.

At the end of the Winter Session a couple of lectures on Medical Ethics are delivered by Dr. W. S. Colman.

MENTAL DISEASES.

DR. PERCY SMITH.

A three months' course of lectures is given during the Summer Session, comprising Causation, Symptomatology, Classification, States and Forms of Disease, Pathology and Treatment. Lunacy Law.

FORMS OF INSANITY.

(i.) Congenital or infantile mental deficiency (Idiocy or Imbecility). (1) Intellectual—(*a*) With Epilepsy; (*b*) Without Epilepsy. (2) Moral.

(ii.) Insanity occuring later in life. (1) Insanity with Epilepsy. (2) General Paralysis of the Insane. (3) Insanity with the grosser brain lesions. (4) Acute delirium (Acute delirious Mania). (5) Confusional Insanity. (6) Stupor. (7) Primary Dementia. (8) Mania—(*a*) Recent; (*b*) Chronic; (*c*) Recurrent. (9) Melancholia—(*a*) Recent; (*b*) Chronic. (*c*) Recurrent. (10) Alternating Insanity. (11) Delusional Insanity—(*a*) Systematised; (*b*) Non-systematised. (12) Volitional Insanity—(*a*) Impulse; (*b*) Obsession; (*c*) Doubt. (13) Moral Insanity. 14. Dementia—(*a*) Senile; (*b*) Secondary or Terminal.

Clinical Instruction is given by visits to Bethlem Royal Hospital, or other asylums, on Saturdays at 11 a.m. during the Summer Session, and also in the Out-Patient department at St. Thomas's Hospital, on Tuesdays at 10 throughout the year.

TROPICAL DISEASES.

DR. SANDWITH.

A course of lectures is given during the Summer Session, commencing the first week in May. The lectures are on Wednesdays at 4.30. The subjects are selected from the following syllabus: Malaria, Mediterranean Fever, Dengue, Cholera, Dysentery, Beri-beri, Plague, Pellagra, Bilharziasis, Ankylostomiasis, Leprosy.

DISEASES OF THE EYE.

MR. LAWFORD AND MR. FISHER.

A course of lectures is given by Mr. Lawford and Mr. Fisher during the first half of the Winter Session. Occasional demonstrations of cases are also given. Clinical lectures or demonstrations of cases are given during the Summer Session.

An elementary class for learning the use of the Ophthalmoscope is held in October, January, and May.

A special class for Instruction in Refraction is attended by the dressers on their appointment.

Oral classes and demonstrations are held in connection with the Surgical tutorial classes for the examinations of the "Conjoint Board."

A Special Course of operations on the dead subject is given by Mr. Fisher.

DISEASES OF THE THROAT.

MR. HOWARTH.

A course of lectures on this subject is delivered during the second half of the Winter Session.

PUBLIC HEALTH.

PROF. SIMPSON.

A course of lectures is given during the Summer Session, dealing with:—

Water, Air, Soil, Food, the Dwelling in relation to Health and Disease—Infectious and Epidemic Diseases, the principles of preventive measures—Quarantine, Port Sanitary Administration, Isolation—Hospitals, temporary or permanent—Provisions of the Act for Notification of Diseases—The principles of Disinfection and the mode of action of the chief disinfecting agents—Vaccination—Statistics in relation to public health—Statutes relating to public health—The powers and duties of Sanitary Authorities and their officers—Water Supply, Drainage, Sewerage, the disposal of sewage and excreta by methods adapted to either town or country districts—Trades regulated under the Factory and Public Health Acts.

The lectures may be supplemented by Public Health demonstrations, relating to water supply, systems of sewage disposal and purification, establishment and organization of Isolation Hospitals, house drainage, schools, workhouses and other institutions, Dairy Sanitation, etc. Contagious Diseases (Tuberculosis) Animals' Act.

St. Thomas's Hospital Medical School is one of the institutions recognised by the Universities of Oxford, Cambridge, and London, and the Royal Colleges of Physicians and Surgeons for Laboratory instruction in Public Health.

TUTORIAL CLASSES.

All students are specially prepared for examinations in the final subjects of Medicine, Surgery, and Midwifery, by a system of Tutorial Classes. These are held three times a year in each subject, and last for eight weeks before each examination. Each course consists of about twenty-five to fifty classes. The classes are mostly conducted by Members of the Hospital Staff, and their chief object is to prepare students for *viva voce* Examination.

HOSPITAL PRACTICE.

CLINICAL TEACHING OF MEDICINE AND SURGERY.

CLINICAL INSTRUCTION is given daily by the Physicians and Surgeons during their visits to the Wards, and by the Physicians and Surgeons in the Out-Patient Departments (Time Table, p. 28).

CLINICAL LECTURES are given on Wednesdays throughout the sessions, each lecture being so far as possible, illustrated by cases. They include a series of lectures or demonstrations given in connection with the Special Departments. The times and subjects of all Clinical Lectures are announced beforehand on the notice boards. To comply with the regulations of the Conjoint Examination Board these lectures must be attended during a period of nine months. Attendance at the lectures is registered.

CLINICAL APPOINTMENTS.

CLINICAL CLERKS and DRESSERS to In-patients are appointed every three months. The In-Patient Dressers go on Accident Duty in rotation. The DRESSER on Accident Duty is provided with a Room and Commons in the Hospital.

CLINICAL CLERKS and DRESSERS for the Out-patients are also appointed at the same intervals.

Applicants for Clinical Appointments are required to have passed the 2nd examination of the Conjoint Board, or an equivalent examination. All Clinical Clerks must attend a course of instruction in Elementary Clinical Medicine (p. 19). Dressers must attend Classes in Practical Surgery (p. 19), the Lecture on Anæsthetics and the Classes held for them by the Surgical Registrar. (*The Duties of all Clerks and Dressers commence on the third Tuesday in January, April, July, and October.*)

CLINICAL CLERKS TO THE ANÆSTHETISTS are also appointed to hold office for three months. They must have attended the preliminary lecture on Anæsthetics and Anæsthetic Apparatus by Dr. Low.

CLINICAL CLERKS IN THE GYNÆCOLOGICAL AND MATERNITY DEPARTMENTS are appointed every three months. For half this time they are attached to Dr. Tate in the Gynæcological Ward, and for the other half to Dr. Fairbairn in the Maternity Ward and the Out-door Maternity District. They are also expected, whenever possible, to attend the Out-Patient Department for Diseases of Women under charge of Dr. Fairbairn and Dr. J. P. Hedley.

The Clerks are appointed, in rotation, from a list of Students who have entered their names for the purpose, have attended Lectures on Midwifery and have held the offices of Clinical Clerk and Dresser. They must attend the classes in Elementary Practical Obstetrics. Certificates are awarded to those Gentlemen who have satisfactorily attended Sixty Maternity cases. An allowance is made towards the cost of board and lodging.

Appointments in the SPECIAL DEPARTMENTS of the Hospital must be held by all students who have finished their terms as In- and Out-patient Clerks and Dressers, otherwise they cannot be considered as attending Hospital Practice or receive the necessary signatures to that effect.

SPECIAL DEPARTMENTS.

Diseases of Women.—Clinical instruction is given in Adelaide Ward on Tuesdays and Fridays at 2 p.m., and in the Casualty and O. P. Department on Mondays and Wednesdays at 1.30 p.m. and on Fridays at 9.30 a.m.

Midwifery.—A Maternity Ward of 20 beds is available for teaching purposes. This enables University Students to comply with the new regulations of the Examining Bodies without going to a Special Hospital. All Students will receive one month's training in the Ward before attending confinements in the district. Clinical Instruction is given on Mondays at 1.30 p.m. and on Tuesdays at 2 p.m.

A maternity department, under the supervision of the Obstetric Physician to out-patients, is connected with the hospital, women being attended in confinement at their own homes by students of the hospital (p. 34).

Medical and Surgical Diseases of Children.—Clinical Instruction is given in the Out-Patient Rooms on Wednesdays and Saturdays at 10 a.m.

Diseases of the Eye.—Patients are seen and Clinical Instruction afforded in the Out-Patient rooms daily at 2 p.m., except Saturday, thus giving exceptional facilities for the study of eye disease (Time Table p. 28). Clinical Lectures and Ophthalmoscopic Demonstrations are also given.

Diseases of the Skin.—Clinical instruction on Tuesdays at 2 p.m., Wednesdays at 11 a.m., and Fridays at 2 p.m. Wednesday mornings are devoted to children.

Diseases of the Throat.—Clinical instruction on Wednesdays at 2 p.m.

Diseases of the Ear.—Clinical instruction on Mondays and Thursdays at 2 p.m.

Mental Diseases.—Clinical instruction on Tuesdays at 10 a.m., in the Out-Patient department, and also at 11 a.m. on Saturdays during the Summer Session at Bethlem Royal Hospital.

Diseases of the Teeth.—The Dental Surgeon gives instruction in Dental Surgery on Mondays, Tuesdays, Thursdays, and Fridays at 9 a.m.

Vaccination is taught practically at the Hospital by Dr. COPE, on Tuesdays at 10.30 a.m., who is authorised by the Local Government Board to give certificates of proficiency. (Fee, see p. 37).

X-Rays and Electro-Therapeutics.—Instruction is given on Mondays, Wednesdays and Fridays at 2 p.m.

Vaccine Treatment is administered in the Special Laboratory from 10-12 daily, Saturdays excepted.

Physical Exercise.—Instruction is given in the Department on Mondays, Wednesdays and Fridays at 1.30 p.m.

For further appointments, open to Qualified Students, see page 33.

DAYS AND HOURS OF LECTURES AND DEMONSTRATIONS.

WINTER SESSION.

First Year.

		Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Biology, p. 16, Dr. Gates ...	Lectures	2–3	9½–10½	—	9½–10½	—	—
	Practical Work	3–5	10½–12	—	10½–1	—	—
	Revision	—	—	—	—	—	9½–10½
Chemistry, p. 16, Dr. Le Sueur and Dr. Haas	Lectures	12–1	—	12–1	—	12–1	—
	Practical Work	10–12	—	—	2—5	—	—
	Revision (Jan.-Mar.)	—	—	11–12	—	—	—
Physics, p. 16, Mr. Brinkworth	Lectures	—	12–1	—	—	10–11	—
	Practical Work	—	—	—	—	2—5	—
	Tutorial	—	—	—	—	11–12	—
	Revision	—	—	10–11	—	—	—

Second and Third Years.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Descriptive Anatomy, Mr. Parsons, p. 16,	9.30	9.30	9.30	9.30	9.30	—
Anatomical Demonstrations, p. 17, Mr. Parsons and Demonstrators	10½–4½	10½–4½	10½–4½	10½–4½	10½–4½	10½–1
Revision	2—3	12–1	2—3	12–1	2—3	—
Physiology, Dr. J. Mellanby and Mr. A. Mavrogordato, p. 17 ..... Lecture	10.45	—	10.45	—	10.45	—
Practical Physiology, p. 17	—	—	11.45	—	11.45	—
Revision	4½–5½	4½–5½	—	4½–5½	—	—
Pharmacology, p. 18, Prof. Dixon, Lecture (Oct-Dec.)	5	9	—	—	—	—
Demonstration (Jan.-Mar.)	—	—	—	4	—	—

Fourth Year.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Medicine, p. 19, Dr. Mackenzie, 2nd & 4th six weeks	—	12.30	12.30	—	—	—
Dr. Perkins, 1st & 3rd six weeks	12.30	—	12.30	—	—	—
Surgery, p. 19, Mr. Battle, 1st and 3rd six weeks ... Mr. Robinson, 2nd and 4th six weeks	9	—	—	9	—	9
General Pathology and Bacteriology, p. 20 ... Mr. Shattock	—	—	—	12.30	12 Micro. Dem.	—
Mr. Dudgeon	12 2nd six weeks.	12 1st six weeks.	—	—	—	—
Special Pathology, Mr. Dudgeon	—	—	—	—	—	11.30*
Pathological Demonstrations (In the Post-Mortem Room)	2	2	2	2	2	10
Pharmacology and Therapeutics, p. 18, Prof. Dixon, Lecture (Oct.-Dec.)	5	9	—	—	—	—
Dr. Russell, Demonstration (Jan.-Mar.)	—	—	—	4	—	—
Practical Surgery, p. 19 Mr. Corner (Oct.-Dec.)	—	—	9	—	—	—
Mr. Wallace (Jan.-March)	—	9	—	—	—	—
Applied Anatomy, Dr. Box (Oct.-Dec.) p. 17	—	—	4.30	—	—	—
Laryngology, Mr. Howarth (Jan.-March).	5	—	—	—	—	—

For Time Table of Classes for Examination at the University of London, see page 27.

*Note.—The Pathological demonstration on Saturday follows the Lecture and is partly on the post-mortem material of the week and partly in illustration of the lecture. It is both microscopical and macroscopical.

FIFTH YEAR.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Medicine, p. 19,						
Dr. Mackenzie, 2nd and 4th six weeks...	—	12.30	12.30	—	—	—
Dr. Perkins, 1st and 3rd six weeks	12.30	—	12.30	—	—	—
Surgery, p. 19,						
Mr. Battle, 1st and 3rd six weeks..... / Mr. Robinson, 2nd and 4th six weeks	9	—	—	9	—	9
Diseases of Women, Dr. Tate, p. 18,						
Jan., Feb., Mar.	—	—	9	—	9	—
Diseases of the Eye, p. 22,						
Mr. Lawford, 1st six weeks	—	—	—	—	9	—
Mr. Fisher, 2nd six weeks.....	—	—	9	—	—	—
Applied Anatomy, Dr. Box, p. 17,						
Oct.-Dec.....	—	—	4.30	4.30	—	—

SUMMER SESSION.

FIRST YEAR.

		Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Biology, p. 16, Dr. Gates ...	Lectures	—	2—3	—	12—1	—	—
	Practical Work.....	—	3—5	—	9½—12	—	—
Chemistry, p. 16, Dr. Le Sueur & Dr. Haas ...	Lectures	12	—	—	—	—	—
	Practical Work.....	2—5	—	—	2—5	—	—
	Revision	—	—	10—11	—	—	—
Physics, p. 16, Mr. Brinkworth	Lectures	—	12—1	—	—	9½–10½	—
	Practical Work.....	—	9—12	—	—	—	—
	Tutorial	—	2—3	—	—	10½–12	—
	Revision	—	—	9—10	—	—	—

SECOND AND THIRD YEARS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Materia Medica Demonstrations,						
Mr. Jennings, p. 18	11	—	—	—	2	—
Practical Instruction in Dispensing,						
Mr. Jennings, p. 18	10	—	—	—	10	—
Physiology, p. 17, Dr. J. Mellanby, Mr. A. Mavrogordato	Lectures	—	9	9	9	—	—
	Histology	—	10—12	10—12	10—12	—	—
	Revision	—	12—1	12—1	12—1	—	—
Anatomical Demonstrations, p. 17,							
Mr. Parsons and Demonstrators	11—4	11—4	11—4	11—4	11—4	11—1	
Physiology, p. 17,							
Dr. J. Mellanby & Mr. A. Mavrogordato	—	9	9	9	—	—	

THIRD, FOURTH AND FIFTH YEARS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Midwifery, Dr. Fairbairn, p. 18.....	—	9	9	9	9	—
Special Pathology and Bacteriology,						
Mr. Dudgeon, p. 20	—	—	—	—	4	—
Practical Bacteriology,						
Mr. Shattock (in June), p. 20	12	—	12	—	—	—
Forensic Medicine, p. 21	4.30	—	—	4.30	—	9
Toxicology, Dr. Haas	—	12	—	—	—	—
Mental Diseases, Dr. R. Percy Smith,						
Lecture, p. 21	—	—	—	12	—	—
Asylum Visit	—	—	—	—	—	11—1
Tropical Diseases, p. 22,						
Dr. Sandwith (May and June)	—	—	4.30	—	—	—
Public Health, Prof. Simpson, p. 22	—	—	—	—	12	—
Diseases of the Eye, Mr. Lawford and Mr. Fisher, p. 22	—	As announced	—	—	—	—

(For Clinical Lectures, see p. 23.)

UNIVERSITY OF LONDON.

FIRST EXAMINATION FOR MEDICAL DEGREES.

		Mon.	Tues.	Wed.	Thu.	Fri.	Sat.
Chemistry. H. R. Le Sueur, D.Sc. Lond. and P. Haas, D.Sc. Lond.	Lectures (Winter)	12–1	—	12—1	—	12–1	—
	,, (Summer)	—	—	9—10	—	—	—
	Practical Work (Winter)	10–12	—	—	2–5	—	10–1
	,, (Summer)	10–1	—	—	2–5	—	—
	Revision (Winter)	—	—	10–11	—	—	—
	,, (Summer)	—	—	11–12	—	—	—
Physics. J. H. Brinkworth, B.Sc. Lond.	Lectures (Winter)	—	12—1	—	—	10–11	—
	,, (Summer)	—	12—1	—	—	9½–10½	—
	Practical Work (Winter)	—	2–5	—	—	—	—
	,, (Summer)	—	3–6	—	—	—	—
	Tutorial (Winter)	—	—	—	—	11–12	—
	,, (Summer)	—	2–3	—	—	10½–12	—
	Revision (Winter)	—	—	11–12	—	—	—
	,, (Summer)	—	—	10–11	—	—	—
Biology. R. R. Gates, M.A., Ph.D.	Lectures (Winter and Summer)	2—3	9½–10½	—	9½–10½	—	—
	Practical Work (Winter and Summer)	3—5	10½–12	—	10½–1	—	—
	Revision (Winter)	—	—	—	—	—	9½–10½
	,, (Summer)	—	—	—	—	—	—

N.B.—A Microscope and simple Dissecting Apparatus must be provided by each Member of the Class.

SECOND EXAMINATION FOR MEDICAL DEGREES.—Part I.

Second Winter (also Summer if required).

		Mon.	Tues.	Wed.	Thur.	Fri.	Sat.
Organic and Applied Chemistry. H. R. Le Sueur D.Sc. Lond. and P. Haas, D.Sc. Lond.	Lectures (Winter)	—	12.0	—	12.0	—	—
	Revision (Winter)	—	—	—	—	2.0	—
	Practical Work (Winter)	—	2—5	—	—	3—5	—

SECOND EXAMINATION FOR MEDICAL DEGREES.—Part II.

		Mon.	Tues.	Wed.	Thu.	Fri.	Sat.
Anatomy. F.G. Parsons, F.R.C.S. and Demonstrators.	Lectures (Winter)	9.30	9.30	9.30	9.30	9.30	—
	Special Classes			Daily			
	Dissections			Daily			
Physiology. J. Mellanby, M.D. A. Mavrogordato, B.A., Oxon.	Lectures (Winter)	10.45	—	10.45	—	10.45	—
	,, (Summer)	—	9.0	9.0	9.0	—	—
	Practical Work (Win.)	—	10.45	11.45	10.45	11.45	—
	,, (Sum.)	—	10–12	10–12	10–12	—	—
	Revision (Winter)	4½–5½	4½–5½	—	4½–5½	—	—
	,, (Summer)	—	12–1	12–1	12.1	—	—
Pharmacology. W. E. Dixon, M.A. Cantab., M.D. Lond.	Lectures (Oct.—Dec.)	5.0	9.0	—	—	—	—
	Demonstrations (Jan.—Mar.)	—	—	—	4.0	—	—
Practical Pharmacy and Materia Medica. J. A. Jennings, Ph.C.	Practical Work (Sum.) (Dispensing)	10.0	—	—	—	10.0	—
	Demonstration (Jan.—Mar.)	—	—	2.0	—	—	—

CLINICAL TEACHING BY THE PHYSICIANS AND SURGEONS IN THE WARDS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Dr. HAWKINS	2	—	—	2	—	—
Dr. MACKENZIE	—	2	—	—	2	—
Dr. TURNEY	—	2	—	—	10	—
Dr. PERKINS	2	—	—	2	—	—
Dr. TATE	—	2	—	—	2	—
Dr. FAIRBAIRN	1.30	—	—	2	—	—
Mr. MAKINS	—	2	—	—	2	—
Mr. BATTLE	—	2	—	—	2	—
Mr. BALLANCE	2	—	—	2	—	—
Mr. ROBINSON	2	9.30	—	—	—	—
Mr. LAWFORD	—	2	—	—	2	—
Mr. FISHER	2	—	—	3	—	—
Mr. CORNER (Block VIII)	—	—	2	—	—	—

CLINICAL TEACHING IN THE OUT-PATIENT DEPARTMENT.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Dr. RUSSELL	—	1.30	—	—	1.30	—
Dr. BUZZARD	—	—	1.30	—	—	1.30
Dr. CASSIDY	1.30	—	—	1.30	—	—
Mr. WALLACE	—	1.30	—	—	—	—
Mr. CORNER	1.30	—	—	—	—	—
Mr. SARGENT	—	—	1.30	—	—	1.30
Mr. NITCH	—	—	—	1.30	1.30	—

CLINICAL TEACHING IN THE SPECIAL DEPARTMENTS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Mr. LAWFORD } (Diseases of	—	1.30	—	—	1.30	—
Mr. FISHER } the Eye)	1.30	—	1.30	1.30	—	—
Dr. FAIRBAIRN (Diseas. of Women)	2.30	—	1.30	—	—	—
Dr. HEDLEY (ditto)	—	—	—	—	9.30	—
Dr. BOX (Diseases of Children)	—	—	10	—	—	10
Mr. NITCH (Surgical ditto)	—	—	10	—	—	10
Mr. HOWARTH (Diseases of Throat)	—	—	1.30	—	—	—
Dr. STAINER (Diseases of Skin)	—	1.30	11	—	1.30	—
Mr. MARRIAGE (Diseases of Ear)	1.30	—	—	1.30	—	—
Dr. TURNEY (Electro-Diagnosis)	—	—	3.30*	—	—	—
Mr. REID (X Ray and Electro-Therapeutics)	2	—	2	—	2	—
Mr. McKAY (Diseases of Teeth)	9	9	—	9	9	—
Dr. COPE (Vaccination)	—	10.30	—	—	—	—
Dr. PERCY SMITH (Mental Diseases)	—	10	—	—	—	—
Mr. TIMBERG (Physical Exercise)	1.30	—	1.30	—	1.30	—

* If previous notice be given that the Examination is required.

SPECIAL DAYS AND HOURS FOR SURGICAL OPERATIONS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Surgical Operations	2	2	2	2	2	—
Gynæcological ,,	—	—	—	2	—	—
Eye ,,	—	—	2	2	—	—
Throat ,,	—	—	—	—	9.30	—
Ear ,,	—	—	9.30	—	—	—

POST-MORTEM EXAMINATIONS.

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.
Dr. Box	2	2	—	2	2	—
Dr. Wingfield	—	—	2	—	—	10

DAYS AND TIMES OF ATTENDANCE OF THE ANÆSTHETISTS.

	Mon.	Tues.	Wed	Thurs.	Fri.
Mr. Makins		Dr. Howitt 2–5	Dr. Low 2–5		
Mr. Battle			Dr. Mennell 2–5		Dr. Mennell 2–5
Mr. Ballance		Dr. Mennell 2–5	Dr. Howitt 2–5		Dr. Low 2–5
Mr. Robinson	Dr. Howitt 3.30–5		Dr. Dunkley 2–5		
Mr. Wallace	Dr. Hedley 2–5				
Mr. Corner				Dr. Dunkley 2–5	
Mr. Sargent		Dr. Mennell 2–5			
Mr. Nitch					Dr. Hedley 4–5
Dr. Tate		Dr. Hedley 3–5		Dr. Low 2–5	
Dr. Fairbairn			(When. req.) Dr. Dunkley 9.30		
Mr. Lawford				Dr. Dunkley 2–3	
Mr. Fisher					
Mr. Marriage					Dr. Hedley 2–4
Mr. McKay	Dr. Dunkley 9–10.30			Dr. Dunkley 9–10.30	

SCHOLARSHIPS, MEDALS, AND OTHER PRIZES.

The following Scholarships, Medals, and Prizes are open to Students of the Hospital (for full details see pp. 31, 32).

ENTRANCE SCHOLARSHIPS.

Two Open Scholarships in Arts, equivalent to the Tuition Fees for the First Medical Examination.

Two Open Scholarships in Natural Science of the value of £150 and £60 respectively. These Scholarships must be taken out in Tuition Fees.

The University Scholarship of £50 in Anatomy, Physiology and Chemistry.

At the end of the Second Summer :—

The William Tite Scholarship of £25.

A College Prize of £5.

At the end of the Third Winter :—

The Musgrove Scholarship or the Peacock Scholarship (alternately) of £35.

A College Prize of £10.

At the end of the Fourth Winter :—

Second Tenure of the Musgrove or the Peacock Scholarship.

At the Examination of the Fifth Winter :—

The Treasurer's Medal to the student who most distinguishes himself.

The Hadden Prize for Pathology.

Prizes of £10 each for Medicine, Surgery, Midwifery and Diseases of Women. Prizes of £5 each for Public Health, Pharmacology, and Forensic Medicine with Insanity.

At the end of the Sixth Winter :—

The Mead Medal in Medicine, Pathology and Hygiene.

The Wainwright Prize in Medicine, Pathology and Hygiene.

The Toller Prize in Medicine, Pathology and Hygiene.

The Cheselden Medal in Surgery and Surgical Anatomy.

Prizes which must be competed for before the end of the Seventh Year :—

The Bristowe Medal in Pathology.

The Beaney Scholarship of £50 in Surgery and Surgical Pathology (biennial prize).

The Solly Medal and Prize for Reports of Surgical Cases (biennial prize).

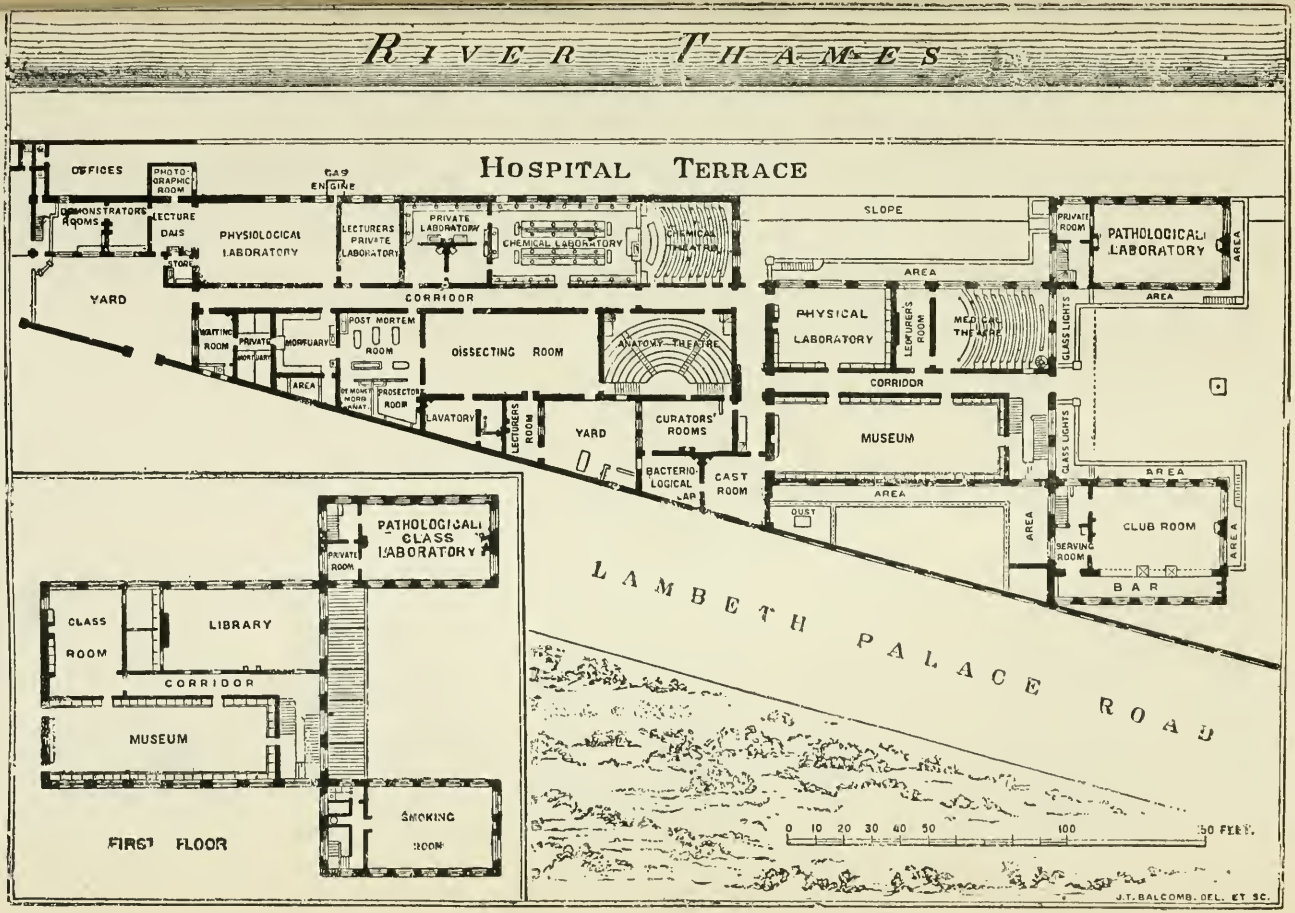
The Sutton Sams Prize for Reports of Cases in Obstetric Medicine (biennial prize).

Research Scholarships for Qualified Students :—

The Salters' Company Research Fellowship of £100 in Pharmacology (tenable for three years).

The Louis Jenner Research Scholarship of £60 in Pathology (tenable for two years).

A Prize of £15 known as the Granger Testimonial Prize is awarded annually for work in Anatomy or Physiology.


RIVER THAMES
HOSPITAL TERRACE
OFFICES
PHOTO-GRAPHIC ROOM
GAS ENGINE
DEMONSTRATORS ROOMS
LECTURE DAIS
STORE
PHYSIOLOGICAL LABORATORY
LECTURERS PRIVATE LABORATORY
PRIVATE LABORATORY
CHEMICAL LABORATORY
CHEMICAL THEATRE
SLOPE
PRIVATE ROOM
PATHOLOGICAL LABORATORY
AREA
YARD
CORRIDOR
WAITING ROOM
PRIVATE MORTUARY
MORTUARY
POST MORTEM ROOM
DISSECTING ROOM
ANATOMY THEATRE
PHYSICAL LABORATORY
LECTURERS ROOM
MED. CAL THEATRE
GLASS LIGHTS
PROSECTORS ROOM
LAVATORY
CURATORS' ROOMS
MUSEUM
BACTERIOLOGICAL LAB.
CAST ROOM
DUST
CLUB ROOM
SERVING ROOM
BAR
PATHOLOGICAL CLASS LABORATORY
CLASS ROOM
LIBRARY
MUSEUM
SMOKING ROOM
FIRST FLOOR
LAMBETH PALACE ROAD
0 10 20 30 40 50 100 150 FEET.
J.T. BALCOMB. DEL. ET SC.

GROUND PLAN.

DETAILS OF THE SCHOLARSHIPS, MEDALS AND PRIZES.

ENTRANCE SCHOLARSHIPS.

OPEN SCHOLARSHIPS IN ARTS.

Two Scholarships, each equivalent to the Tuition Fee for the First Medical Examination, are offered for competition each year in the third week of July.

These Scholarships are open to any Student who has passed a recognised Preliminary Examination and who is under 20 years of age. Successful competitors must enter at once as Students of the Hospital. The subjects are English, Arithmetic, Algebra and Geometry, together with any three of of the following: French, German, Latin, Greek, Chemistry, and Physics. The Examination is conducted by papers.

The standard is that of the Matriculation Examination of the University of London.

Candidates are required to send in their names and evidence of their eligibility, to the Medical Secretary, not later than July 1st.

OPEN SCHOLARSHIPS IN NATURAL SCIENCE.

Two Scholarships, of the value of £150 and £60 respectively, are offered for competition annually, after an examination in Physics, Chemistry, and Biology.

These Scholarships are open to all Students not exceeding 24 years of age who have passed a recognised Preliminary Examination in Arts, and have not received instruction in Anatomy or Physiology, without any condition as to their becoming Students of the Hospital, except in the case of successful Candidates, who must enter at once for the remainder of the curriculum and take out the Scholarship in Tuition Fees. The Examination will be conducted by means of written papers and practical work. The standard will be that of the First Examination for Medical Degrees of the University of London. Competitors are required to send in their names and Certificate of Birth and of Preliminary Examination to the Medical Secretary not later than July 1st, the Examination is held in the latter part of that month.

UNIVERSITY SCHOLARSHIP.

A Scholarship of the value of £50 will be offered for competition in *any two* of the following subjects: Anatomy, Physiology, Chemistry, in its relations to Medicine and Physiology. It is open to Students who have completed their examinations in Anatomy, and Physiology, for a Medical Degree in any of the Universities of the United Kingdom or the Colonies, and who have not entered for Clinical work in any London Medical School before the commencement of the Summer term, in the latter part of which the Examination is held. The successful Competitor must take out the Scholarship in Tuition Fees at St. Thomas's Hospital.

The Examination is held in the latter part of July.

The WILLIAM TITE Scholarship, founded by the late Sir W. TITE, C.B., M.P., F.R.S., of the value of about £25 is awarded each year to the Student placed highest in the 1st Class List in the examinations at the end of the second Summer Session. Preference, in case of equality between Students, is to be given to the son of a medical man, and more particularly of one who has been educated at St. Thomas's Hospital or is in Practice in Bath.

The MUSGROVE Scholarship, founded by Sir JOHN MUSGROVE, Bart., the late President of the Hospital, of the value of about £35 is awarded biennially to the Student who shall take the highest place in the 1st Class List in the examinations at the end of the third Winter Session. It is tenable for two years, provided the holder has worked during his fourth year to the satisfaction of the Medical School Committee.

The PEACOCK Scholarship, founded by the will of the late Dr. THOMAS BEVILL PEACOCK, for many years Physician, and at the time of his death Consulting Physician to St. Thomas's Hospital, is of the same value as the Musgrove Scholarship; is awarded and held upon the same terms; and is given every second year in alternation with that Scholarship.

The TREASURER'S MEDAL is awarded to the Student who most distinguishes himself in the subjects of the Examination held at the end of the Fifth Winter.

The HADDEN PRIZE (in memory of the late W. B. HADDEN, Assistant Physician, 1885—1893), is awarded at the Examination at the end of the fifth Winter as the prize for Pathology.

The MEAD MEDAL, founded by Mr. and Mrs. NEWMAN SMITH (in honour of Richard Mead, Physician 1703—1714) is awarded annually to a Sixth Year's Student, in respect of a Special Practical Examination in Medicine, Pathology and Hygiene.

The WAINWRIGHT PRIZE, £10, founded by the present Treasurer, is awarded annually to a Student from Oxford or Cambridge University under conditions similar to those for the Mead Medal.

The SEYMOUR GRAVES TOLLER PRIZE, founded by Dr. E. TOLLER (in memory of his son, S. G. Toller, elected Assistant Physician, 1897), is awarded annually to the most distinguished competitor at the Examination for the Mead Medal and Wainwright Prize.

The CHESELDEN MEDAL, founded by the late GEORGE VAUGHAN, Esq. (in honour of William Cheselden, elected Assistant Surgeon, 1719), is annually awarded to the Sixth Year's Student who most distinguishes himself in respect of a Special Practical Examination in Surgery and Surgical Anatomy.

The BRISTOWE MEDAL (in memory of the late Dr. J. S. Bristowe, F.R.S., Assistant Physician and Physician 1854—1892), is awarded annually in respect of a special Practical Examination in Pathology and Morbid Anatomy. The examination is held in the first half of the Winter session. Students are eligible who have completed the Fifth but not the Seventh year of Medical Study.

The BEANEY SCHOLARSHIP, founded by the will of the late Dr. BEANEY, of the value of £50, is awarded biennially, after an examination in Surgery and Surgical Pathology, to a student who shall have completed his fifth but not his seventh year. The examination is held during the Summer Session.

The SOLLY MEDAL (in memory of the late Samuel Solly, elected Assistant Surgeon, 1841), together with a Prize in Money, is awarded biennially. Those Students are eligible to compete who are of from four to seven years' standing. The award is made for the best series of Reports of Surgical cases coming under the Student's personal observation in the Wards, not, however, to exceed ten in number. Reports must be sent in not later than March 21st.

The SUTTON SAMS MEMORIAL PRIZE, is awarded biennially for the best series of Reports of Cases in Obstetric Medicine, including Midwifery and the Diseases of Women. Reports must be sent in not later than June 30th.

The SALTERS' COMPANY RESEARCH FELLOWSHIP of the annual value of £100 has been established and endowed by the Salters' Company, with a view to the promotion of research in Pharmacology. The Fellowship is awarded to a properly qualified person by the Company on the nomination of the Treasurer of St. Thomas's Hospital and a Committee of Selection. It may be held for a term of three years, the Fellow carrying on his researches at St. Thomas's Hospital and giving annual evidence of the performance of satisfactory work to the Committee of Selection. The Fellow is required to devote his whole time to research

and to hold no other office or appointment except by special permission of the Salters' Company, granted on the strong recommendation of the Committee of Selection.

The Louis Jenner Research Scholarship was founded by the Dowager Lady Jenner in memory of her son, Dr. Louis Leopold Jenner. It is of the annual value of £60 and is instituted for the encouragement of original research into the cause, nature and process of disease. The Scholarship is tenable for one year with the possibility of extension of tenure for a second year subject to approval of the Medical and Surgical Officers and Lecturers. The Scholar must be qualified and a Student of the Hospital. The tenure of the Scholarship dates from May 1st of each year and the investigation must be carried on in or in connection with the Louis Jenner Laboratory of Clinical Pathology.

The Grainger Testimonial Prize, of the value of Fifteen Pounds, is awarded annually for work in Anatomy and Physiology. It is open to Students of St. Thomas's Hospital who have completed their Third but not their Seventh year of Medical Study. The Prize is given for an Essay together with Dissections and Preparations illustrating the subject dealt with.

APPOINTMENTS.

(All these Appointments are open to Students without extra payment.)

A Resident Assistant Physician and a Resident Assistant Surgeon, at a salary of £100 per annum each, are from time to time appointed. The appointments are annual, but the tenure of office may be renewed for a term not exceeding one year.

Two Hospital Registrars, at an annual Salary of £100 each, are appointed in each year. They are eligible for annual re-appointment, but may not hold office for more than two years. Preference will be given to Students of the Hospital who have specially distinguished themselves and have completed their studies in the School.

An Obstetric Tutor and Registrar is appointed each year, at an annual salary of £50. He is eligible for annual re-appointment, but may not hold office for more than three years consecutively. The holder of the office takes part in the tutorial instruction of students, under the direction of the Obstetric Physicians.

An Ophthalmic Registrar who acts as a Senior Assistant in the Department and is paid at the same rate as the Obstetric Registrar.

An Assistant in the Louis Jenner Clinical Laboratory, at a salary of £100 per annum

An Assistant Pathologist at a salary of £125 per annum. The last two are subject to annual re-election.

House Appointments, open to Students who have obtained their diplomas.

(*The duties of House Physicians, House Surgeons and Clinical Assistants commence on the first Tuesday, and those of Casualty, Obstetric and Ophthalmic Officers on the third Tuesday in February, May, August and November.*)

Resident House Physicians, Resident House Surgeons, and Casualty Officers are selected every three months. All these Officers are provided with Rooms and Commons by the Hospital, free of expense, and hold office for six months, if recommended for re-election.

A SENIOR and a JUNIOR OBSTETRIC HOUSE PHYSICIAN are selected every three months. Both are provided with Rooms and Commons in the Hospital, free of expense.

A SENIOR and a JUNIOR OPHTHALMIC HOUSE SURGEON are appointed every three months; the Senior is provided with Rooms and Commons in the Hospital, free of expense.

CASUALTY ASSISTANTS and CLINICAL ASSISTANTS in the Departments for Medical and Surgical Diseases of Children, for diseases of the Throat, Skin, Ear, and in the Mental, Electrical, X Ray, and Physical Exercise Departments, are appointed every three months.

Appointments for Students before Qualification.

CLINICAL CLERKS and DRESSERS to In-patients are selected to the number of at least 100 each year, from amongst the most eligible pupils. The DRESSER on Accident Duty is provided with a Room and Commons in the Hospital. CLINICAL CLERKS and DRESSERS for the Out-patients are also appointed, to the number of at least 80 to 100 each year; applicants for Clerkships or Dresserships are required to have passed the 2nd examination of the Conjoint Board, or an equivalent examination.

CLINICAL CLERKS must attend a course of instruction in Elementary Clinical Medicine (p. 19). *(The Duties commence on the third Tuesday in January, April, July and October.)* CLINICAL CLERKS TO THE ANÆSTHETISTS are also appointed to hold office for three months.

DRESSERS must attend the Lectures on Practical Surgery and also (during their first three months) the Special Classes held by the Surgical Registrar, and the Lecture on Anæsthetics.

CLINICAL CLERKS and DRESSERS to the various SPECIAL DEPARTMENTS are elected from amongst those Students who have finished their terms as Clerks and Dressers in the Wards and Out-patient Departments.

GYNÆCOLOGICAL and OBSTETRIC CLERKS are appointed, in rotation, from a list of Students who have entered their names for the purpose. They must have attended Lectures on Midwifery and a course of Elementary Practical Obstetrics, have passed the "Second Conjoint," or an equivalent Examination, and have held the offices of Clinical Clerk and Dresser. Each Clerk holds office for three months, and Special Certificates are awarded to those Gentlemen who have satisfactorily attended Sixty Maternity cases. An allowance is made towards the cost of board and lodging. (See also page 11.)

Students are appointed to act as ASSISTANTS in the CLINICAL LABORATORY, the PATHOLOGICAL LABORATORY and the POST-MORTEM ROOM.

ASSISTANTS TO THE TEACHERS OF PRACTICAL AND MANIPULATIVE SURGERY are appointed for the Winter Session.

ASSISTANTS TO THE LECTURER ON MATERIA MEDICA are appointed for the Summer Session.

ASSISTANTS IN THE CHEMICAL DEPARTMENT are selected from those who have passed the FIRST EXAMINATION FOR MEDICAL DEGREES, UNIV. LOND., or who are similarly qualified.

ASSISTANTS IN THE PHYSIOLOGICAL LABORATORY are selected from Students who have completed their Second Winter Session.

ANATOMICAL REGISTRARS and PROSECTORS are appointed in the early part of the Winter Session, also ASSISTANTS TO THE LECTURER ON ELEMENTARY BIOLOGY.

REGULATIONS FOR THE EXAMINATION AND CLASSIFICATION OF THE STUDENTS AT THE MEDICAL SCHOOL.

1. In accordance with the Regulations of the Qualifying Bodies, Students must attend the Class Examinations in the subjects for which they have to be certified, and show by their answers to the questions that they have paid proper attention to the Lectures, otherwise the signature to their Schedules may be withheld.

2. There shall be held at least two Examinations in the 2nd and 3rd Winter and one in the 2nd Summer Session in each subject on which attendance is required during that Session, and the marks obtained in these Examinations shall be the basis for the Classification of Students and the Award of Prizes for each Session respectively. Provided that any extra Examination in the course of the Session, in any subject, be not allowed to interfere with the ordinary Lectures in other subjects.

3. The number of marks allotted to each subject in the following Schedule is not to be exceeded in case the number of Examinations held during the Session be more than two, but must be distributed amongst the several Examinations.

4. Students must obtain at least one-third of the total number of marks in each subject, and not less than two-thirds of the total number allotted to all the subjects collectively, to be placed in the 1st Class.

Those who have obtained one-third of the total number of marks allotted to all the subjects collectively are placed in the 2nd Class.

The names of those who do not obtain either a 1st or 2nd Class position are not published, but a General List showing the exact position of each Student at every Examination is kept by the Secretary, from whom any Student can learn his own position, but no Lecturer shall make known to Students the number of marks obtained by any Student in any subject.

5. The Prizes shall be awarded to the Students holding the 1st and 2nd positions in the 1st Class of each Winter Session, and to those holding the 1st and 2nd positions of the 1st Class in the second Summer Session.

6. The Authorities reserve the right of withholding any prize, if no competitor of sufficient merit presents himself.

7. Attendance and satisfactory performance at the Fifth Year's Examination is compulsory upon all Students who desire to hold a House Appointment, or an appointment as Clinical Assistant in a Special Department.

2nd YEAR'S SUBJECTS.

WINTER ...	Anatomy	Viva. (Dec.)	50
	Physiology.	Viva. (Dec.)	50
SUMMER ...	Anatomy	Paper	100
	Physiology	Paper	100
	Anatomy	Viva.	100
	Physiology	Viva.	100
	Pharmacy	... ...	100
			600

3rd YEAR'S SUBJECTS.

WINTER ...	Anatomy.	Paper (March)	100
		Viva. (Dec.	50
		Viva. (March)	50
	Physiology.	Paper (March)	100
		Viva. (Dec.)	50
		Viva. (March)	50
			400

5th YEAR'S SUBJECTS.

Medicine 120.
Surgery, Practical Surgery and Ophthalmology 120.
Midwifery and Diseases of Women 120.
Pathology 60.
Pharmacology and Therapeutics 30.
Forensic Medicine and Insanity 20 each.
Public Health 30.

Every Student must take up at least three subjects, one of which must be either Medicine or Surgery.

FEES.

I. COMPOSITION FEES.

A. Students entering for the First Examination for Medical Degrees of London University or the 1st Conjoint Examination.

Composition Fee:—For the full course of 1 year or less ... ... 15 Guineas.
For each subsequent six months, or less ... 8 ,,

These fees include the cost of all materials used in the practical classes.

B. Students who have passed the First Examination for Medical Degrees or corresponding examinations.

Entrance Fee. For students commencing the study of Anatomy and Physiology ... ... 20 Guineas.
Annual Composition Fee ... ... 30 ,,

C. Students from the Universities, who have commenced but not completed their study of Anatomy and Physiology.

Entrance Fee ... ... 15 guineas.
Annual Composition Fee ... ... 30 ,,

D. Students who have passed the Oxford 1st M.B., Cambridge 2nd M.B., Second Examination for Medical Degrees (Part II.) Univ. Lond. or corresponding examinations, and join the school for Clinical Study.

Entrance Fee ... ... 10 Guineas.
Annual Composition Fee ... ... 30 ,,

Regulations regarding Composition Fees.

1. The Entrance Fee under Sections B, C & D, is due from every student on the day of his admission to the School.

2. The Annual Composition Fee is due in advance on the first day of the term in which the student enters, and on the corresponding day of each successive year, until he has obtained either a Medical Degree of a British University, the diploma of the Conjoint Board in England, or such other registrable qualification as may be approved from time to time by the School authorities.

3. A student who obtains one of the above qualifications within three months of the date on which his last annual composition fee became due, will be allowed a rebate of 20 guineas ; if within six months, 10 guineas.

4. The payment of the entrance fee and annual composition fee entitles a Student, during the twelve months following the date on which each annual fee becomes due, to attend the full practice of the Hospital, all lectures, demonstrations and other instruction provided by the School for students of his standing (with the exception of such courses as may from time to time be specially excluded) ; to compete for prizes, and, if selected, to hold appointments in the Hospital.

The regular course includes the Special Classes to prepare Students for the Second Examination for Medical Degrees, Univ. Lond., and Primary F.R.C.S. Examinations, provided that these Examinations are taken before qualification.

5. The course of study pursued by a student paying annual composition fees must be continuous, unless the authorities of the School in particular cases, on the ground of illness, or other cause which may appear to them sufficient, shall otherwise determine.

6. A student who has paid an entrance fee with two or more annual composition fees, who has worked to the satisfaction of the Medical School Committee, and who has obtained one of the qualifications referred to in paragraph 2, may hold resident and other appointments without further payment, and becomes a Perpetual Student.

No charges are now made for materials and apparatus, but Students must pay for the "parts" they dissect at rates which may be ascertained in the Library.

Students must provide themselves with Microscopes and Dissecting Instruments.

II. EXTRA CLASSES.

(Not covered by the Composition Fee.)

These must be attended by all Medical Students to meet the requirements of the various Examining Boards, and are arranged for by the School Authorities through whom the fee may be paid.

Vaccination	1½ guineas.
Practical Pharmacy	3 guineas.
Attendance at a recognised Fever Hospital...	3 guineas.

III. FEES FOR COURSES NOT INCLUDED IN THE COMPOSITION FEE.

Primary F.R.C.S. (for Candidates who are qualified from St. Thomas's Hospital)	10 guineas.
Primary F.R.C.S. External Students	15 guineas.
Final F.R.C.S.—St. Thomas's Students	10 guineas.
„ External Students	15 guineas.
Advanced Operative Surgery (including material)	5 guineas.

IV. HOSPITAL PRACTICE.

(For other than those who enter for the full Curriculum.)

The following are the fees payable by those who desire to attend the Practice of the Hospital for limited periods, including Lectures and Post-mortem Inspections. The payment of these fees renders the Student eligible for Hospital appointments :—

For three months' Hospital Practice	15 guineas.
Six months' „ „	25 guineas.
One year „ „	40 guineas.

LECTURES, DEMONSTRATIONS AND CLASSES.

Single Courses of Lectures, Demonstrations and Classes in any of the Subjects taught in the school may be attended on payment of fees that may be ascertained on enquiry at the Secretary's Office.

The full Fees payable to the School for the time in which a qualification should be taken are :—

	£	s.	d.
1st year	15	15	0
2nd year entrance fee	21	0	0
One year's fee	31	10	0
Fees for 3rd, 4th and 5th year	94	10	0
Vaccination, Pharmacy and Fevers	7	17	6
	£170	12	6

For University Students (entering for Clinical work) :—

	£	s.	d.
Entrance Fee	10	10	0
2 years' fees	63	0	0
Vaccination, Pharmacy and Fevers	7	17	6
	£81	7	6

POST GRADUATE INSTRUCTION.

The following General and Special Hospitals in London have combined to make all their clinical advantages available to qualified medical men.

General Hospitals.

Charing Cross,	St. Mary's,	University College,
Guy's,	St. Thomas's,	Westminster.
King's College,		

Special Hospitals.

The Brompton Hospital for Diseases of the Chest,
The Great Ormond Street Hospital for Sick Children,
The London School of Tropical Medicine,
The National Hospital for the Paralysed and Epileptic,
The Royal London Ophthalmic Hospital (Moorfields),
and also the London Polyclinic, 22, Chenies Street, Gower Street, W.C.

Cards are issued at the following rates :—For three months, 10 guineas ; for six months, 15 guineas ; and any longer period at a further rate of 9 guineas for each additional six months.

These cards entitle the holder to attend the Hospital Practice (*i.e.*, wards, out-patient rooms, operating theatres, clinical lectures, and post graduate courses) at any of the above-mentioned institutions. The cards do not admit to Tutorial Classes or entitle the holder to certificates of attendance for the purpose of any examination.

All particulars may be obtained at the Office of the London Post-Graduate Association, 20, Hanover Square, London, W., between the hours of 10.30 and 1 (Saturdays excepted).

AMALGAMATED CLUBS.

The Social Club occupies the East Wing of the Medical School buildings, and consists of two noble rooms, each of which is over fifty feet in length, and of proportionate width. On the ground floor is the Restaurant, which is under the control of a combined committee of Staff and Students. On the first floor is a magnificent reading and smoking room which is provided with the current literature of the day, and has lately been re-furnished.

All the Clubs were amalgamated in July, 1888, and are maintained by the subscriptions of the members, and by a yearly grant from the Medical and Surgical Officers and Lecturers.

The Amalgamated Clubs comprise the Students' Club, the Medical and Physical Society, the St. Thomas's Hospital Gazette, and the following Clubs :—Athletic, Chess, Cricket, Cross Country, Football (Rugby and Association), Lawn Tennis, Hockey, Rifle, Rowing, Boxing, and Swimming. The Council of the Amalgamated Clubs are in possession of a Cricket, Football, and Lawn Tennis Ground, of more than nine acres in extent, provided with a commodious pavilion. It is situated within five minutes walk of the L. & S. W. Railway Station at Chiswick, and can be reached within forty minutes from the Hospital. Cheap return tickets (7d., 3rd class) can be obtained.

The Annual Subscription to the Amalgamated Clubs is £3 3s. After the payment of five consecutive subscriptions the Student becomes a Life Member, provided he has obtained a registrable qualification.

ST. THOMAS'S HOSPITAL MEDICAL AND PHYSICAL SOCIETY.

President.—PERCY W. G. SARGENT, F.R.C.S.

Hon. Treasurer.—MR. F. G. PARSONS.

Hon. Secretaries.

MR. W. B. FOLEY. MR. A. C. BALLANCE.

This Society was founded in the early part of the last century by students of the Hospital, and has for its object the reading and discussion of papers on Medicine, Surgery, and subjects of general interest, the narration of cases, and the exhibition of specimens of Physiological and Pathological interest. The Meetings are held in the Students' Club on alternate Thursdays at 8.30 p.m., and terminate not later than 10 p.m.

Further information can be obtained of the Hon. Secretaries.

ST. THOMAS'S HOSPITAL GAZETTE.

The Gazette was founded in 1891, and since then has appeared monthly during the Winter and Summer Sessions. It records the current events of the Hospital and School, including reports of the various sections of the Amalgamated Clubs, and of the proceedings of the Medical and Physical Society. Articles are contributed by Members of the Staff, and by past and present Students, dealing with new methods of treatment and technique, as seen in the practice of the Hospital, and with medical work and life at home, abroad and in the Services. Photographs and illustrations are frequently inserted. In this way the Gazette endeavours to be a common interest to all Members, past and present, of the Medical School.

The GAZETTE is supplied without further payment to those who subscribe annually to the Amalgamated Clubs. Subsequently it may be obtained by an annual subscription of 5s., or by a Composition at the rate of 1 guinea for 5 years, or 3 guineas for life.

ST. THOMAS'S HOSPITAL REPORTS.

VOL. XL., NEW SERIES,

EDITED BY

J. J. PERKINS, M.A., M.B. Cantab.
C. A. BALLANCE, M.V.O., M.S. London.

Will be Published in due Course.

The Volume will contain the Statistical Reports of the Hospital to December 31st, 1911. A General Index to Vols. I. to XXV. appeared in Vol. XXVI. The New Series commenced in 1870.

Intending Subscribers are requested to communicate with MR. G. Q. ROBERTS, the Secretary of the Medical School, at the Hospital, to whom P.O. Orders on the Westminster Bridge Office are to be made payable.

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To Subscribers in Great Britain and Countries within the Postal Union ... 6*s.* 0*d*
To Non-Subscribers do. do. do. ... 8*s.* 6*d*.

Award of Prizes for the Past Sessions

SUMMER SESSION, 1911.

SECOND YEAR'S STUDENTS.

A. L. Blunt ... ... The Wm. Tite Scholarship, £25, and Certificate of Honour.

H. R. Sheppard ... ... College Prize, £5, and Certificate of Honour.

WINTER SESSION, 1911–1912.

THIRD YEAR'S STUDENTS.

A. L. Blunt ... ... The Peacock Scholarship, £35, and Certificate of Honour.

FOURTH YEAR'S STUDENTS.

R. M. de Mowbray .. .. Second Tenure of the Musgrove Scholarship, and Certificate of Honour.

FIFTH YEAR'S STUDENTS.

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